

Crop, fodder/food	WRS	WWH	WWB	WBA	WBE	RYE	TRI	SBA	SWH	OAT	MCC	MCW	GRO	GCR	GCR	GHP	GRP	CGR0	CONC	
Crop #	22	11	13	10	14	16	14	16	1	2	3	5	216	263	260	261	2520	252	2610	9999
<NUE/e>	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	1.05	0.83	1.33	11.68	0.44	0.81	-2.75	1.00
N digestibility, food/fodder crops	0.84	0.67	0.68	0.66	0.62	0.65	0.62	0.65	0.65	0.67	0.64	0.62	0.63	0.78	0.80	0.80	0.66	0.78	0.80	0.87
<NUE/e> addition before cereal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.04	0.11	29.21	0.00	0.00	-0.81	0.00
<NUE/e> addition from straw	0.09	0.07	0.07	0.08	0.11	0.10	0.08	0.05	0.08	0.05	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Recalculated N norm, kg N/ha	144	157	198	147	117	141	117	141	118	118	93	140	160	309	199	21	132	132	-87	

Crop, PPO/biodiesel/bioethanol	WRB	WWHB	WWBB	WBB	RYB	TRB	SBB	SWB	OAB	MCB
Crop #	229	119	139	109	149	169	19	29	39	59
<NUE/e>	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
N digestibility, other crop parts	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.83
<NUE/e> addition before cereal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<NUE/e> addition from straw	0.09	0.07	0.07	0.08	0.11	0.10	0.08	0.05	0.07	0.00
Recalculated N norm, kg N/ha	144	157	198	147	117	141	118	118	93	140

<NUE/e> amounts from crop res	0.02	0.07	0.06	0.05	0.10	0.09	0.06	0.08	0.06	0.14	0.04	0.04	0.13	1.28	0.15	0.15	-0.30
<NUE/e> amounts from N fixation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31	7.97	0.00	0.00	-2.70

Manure/ferti- lizer kind, #	None	N	Cattle manure	Pig manure	Poultry manure	Sheep manure	Goat manure	Green	Green	None
Manure handling	0	1	2	3	4	5	6	71	72	0
Manure+straw, relative	1.000	1.016	1.159	1.000	1.000	1.000	1.162	1.000	1.000	1.000
Vol/NH3 House	0.000	0.080	0.060	0.000	0.100	0.250	0.000	0.150	0.000	0.000
Vol/NH3 Store	0.000	0.022	0.085	0.000	0.000	0.020	0.150	0.000	0.000	0.000
% use of field store	0.000	0.250	0.250	0.250	0.250	0.250	0.250	0.070	0.250	0.250
N efficiency	0.000	1.000	0.650	0.450	0.750	0.650	0.450	0.450	0.450	0.400
N-Vol/NH3 efficiency	1.022	0.933	0.867	0.600	0.484	1.000	0.867	0.867	0.600	0.484

Use Kind	Waste moved in field	Cattle Dairy	Cattle Beef	Pig Pork	Poultry Meat	Poultry Eggs	Sheep Milk/mutton	Goat Milk/meat	N crop high N	N crop low N	Food/ beverage	Fuel/ other
#	-1	0	21	32	42	43	51	61	71	72	8	9
Fodder to food	N eff	NON	0.264	0.227	0.418	0.241	0.142	0.096				
Fodder to food	N eff	ORG	0.264	0.146	0.269	0.272	0.142	0.096				
Fodder to food	ND eff	NON	0.351	0.310								
Fodder to food	ND eff	ORG	0.351	0.199								

Ratios of N2O-N to N according to Fertilizer/manure	IPCC 1996 (current inventories)	IPCC 2006 (newest values, not yet used for inventories)
Handling/ house/store	N Animal Green	N Animal Green
Slurry and liquid manure	0	0
Solid manure and deep litter	0	0
Application/field	0.0125	0.0100
Grazing cattle, rooting pigs, craping poultry	0	0
Grazing, others	0	0
Volatilisation/NH3	0.0100	0.0100
Crop residues	0	0
N fixing crops	0	0
Leaching	0.0250	0.0075

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE CATTLE DAIRY Note 43
 AND CONTINUING WITH LIQUID CATTLE MANURE TO PRODUCE CATTLE DAIRY Note 43

Year Fertilizer/manure Or- Nnorm Crop Straw Cereal Crop Fuel/ Manure Final N2O-N emission
 # Store Amounts ganic propor # use & benefit 1/0 leach used 1/0 beved other #9 handling N a- IPCC 1996
 Name 1/0 Store Field 1/0 Name 1/0 Name 1/0 Name Fed Uses #21-61 Food #72 #71/ #72 #8 #9 # Name mounts Each Total Each Total

Total N	RATIO OF N2O-N TO N IN FIRST CROP											23.1	23.0	1.64	3.37	1.46	2.08
Year N NH3	IPCC 1996											13.7	13.7	0.14	0.14	0.14	0.14
1-10 N leach	IPCC 2006											63.6	63.3	1.59	0.48	0.48	0.48
	TOTAL											100.5	100.0				

N2O-N in food/beverage/fuel/other

Year	N	1	100.0	100.0	0	100	109	0	1	97.8	21	40.0	11.8	0.0	0.0	7.6	21	28.2	1.31	2.61	1.17	1.59
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WBB	1.000	YES	50.2	Cattle	0.84	0.0	0.0	0.0	0.0	2.3	0.04	0.0125	0.04	0.1000
	N leach		1.022	1.000	ORG	1.00	1.000	0.591	7.6	50.2	Dairy	2	2	0.0	0.0	5.0	Liquid	0.38	0.0050	0.38	0.0050	
Year	N	21	26.4	25.8	0	100	11	0	1	19.3	21	7.2	1.7	0.0	0.0	1.3	21	5.5	0.26	0.61	0.23	0.39
2	Vol/NH3	Cattle	YES	0.6	6.4	NON	100.00	WWH	1.000	YES	10.8	Cattle	0.67	0.0	0.0	0.0	0.0	0.4	0.07	0.0125	0.07	0.0100
	N leach	Liquid	0.933	1.016	ORG	1.00	1.000	0.627	1.3	10.8	Dairy	2	2	0.0	0.0	1.3	Liquid	0.08	0.0050	0.08	0.0050	
Year	N	21	5.2	5.0	0	100	11	0	1	3.8	21	1.4	0.3	0.0	0.0	0.3	21	1.1	0.05	0.12	0.05	0.08
3	Vol/NH3	Cattle	YES	0.1	1.3	NON	100.00	WWH	1.000	YES	2.1	Cattle	0.67	0.0	0.0	0.0	0.0	0.1	0.01	0.0125	0.01	0.0100
	N leach	Liquid	0.933	1.016	ORG	1.00	1.000	0.627	0.3	2.1	Dairy	2	2	0.0	0.0	0.3	Liquid	0.02	0.0050	0.02	0.0050	
Year	N	21	1.0	1.0	0	100	11	0	1	0.7	21	0.3	0.1	0.0	0.0	0.1	21	0.2	0.01	0.02	0.01	0.01
4	Vol/NH3	Cattle	YES	0.0	0.2	NON	100.00	WWH	1.000	YES	0.4	Cattle	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
	N leach	Liquid	0.933	1.016	ORG	1.00	1.000	0.627	0.1	0.4	Dairy	2	2	0.0	0.0	0.0	Liquid	0.00	0.0050	0.00	0.0050	
Year	N	21	0.2	0.2	0	100	1	0	1	0.1	21	0.1	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00
5	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.1	Cattle	0.65	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
	N leach	Liquid	0.933	1.016	ORG	1.00	1.000	0.627	0.0	0.1	Dairy	2	2	0.0	0.0	0.0	Liquid	0.00	0.0050	0.00	0.0050	
Year	N	21	0.0	0.0	0	100	109	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00
6	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WBB	1.000	YES	0.0	Cattle	0.84	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
	N leach	Liquid	0.933	1.016	ORG	1.00	1.000	0.627	0.0	0.0	Dairy	2	2	0.0	0.0	0.0	Liquid	0.00	0.0050	0.00	0.0050	
Year	N	21	0.0	0.0	0	100	11	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00
7	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
	N leach	Liquid	0.933	1.016	ORG	1.00	1.000	0.627	0.0	0.0	Dairy	2	2	0.0	0.0	0.0	Liquid	0.00	0.0050	0.00	0.0050	
Year	N	21	0.0	0.0	0	100	11	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00
8	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
	N leach	Liquid	0.933	1.016	ORG	1.00	1.000	0.627	0.0	0.0	Dairy	2	2	0.0	0.0	0.0	Liquid	0.00	0.0050	0.00	0.0050	
Year	N	21	0.0	0.0	0	100	11	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00
9	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
	N leach	Liquid	0.933	1.016	ORG	1.00	1.000	0.627	0.0	0.0	Dairy	2	2	0.0	0.0	0.0	Liquid	0.00	0.0050	0.00	0.0050	
Year	N	21	0.0	0.0	0	100	1	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00
10	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Cattle	0.65	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
	N leach	Liquid	0.933	1.016	ORG	1.00	1.000	0.627	0.0	0.0	Dairy	2	2	0.0	0.0	0.0	Liquid	0.00	0.0050	0.00	0.0050	

Year Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 Year 9 Year 10 Total Total/year 1

Area with crop, ha 0.68 0.15 0.03 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.87 1.27

Possible additional non IPCC N2O-N emissions Value
 N residues emissions, ratio of N2O-N to N: 0.0000
 Increased soil N emissions, kg N2O-N/ha: 0.00
 Natural background emissions, kg N2O-N/ha: 1.00

Total IPCC and non IPCC N2O 3.37
 Total anthropogenic 3.37
 Total including natural 4.23

Kind of source
 Current crops
 Total anthropogenic
 Total including natural

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE CEREAL Straw Crop Crop Fuel/ Fuel/ N2O-N emission N2O-N emission
 AND CONTINUING WITH CATTLE DEEP LITTER TO PRODUCE WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR #71/ bevs other #9 # Name mounts Each Total Each Total
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Year	Fertilizer/manure #	Store 1/0	Amounts Store 1/0	Field 1/0	Or-ganic 1/0	Nnorm propor-tion, %	Crop #	Cereal benefit 1/0	Straw used 1/0	Crop leach	Use #	Food Fed	N crop #72	Food #8	Fuel/ other #9	Manure handling #	Final N a-mounts	N2O-N emission IPCC 1996	N2O-N emission Each	Total	
Total N	1	1	100.0	100.0	2.2 NON	100.0	109	0	1	97.8	21	40.0	11.8	0.0	7.6	23	28.2	2.12	3.89	1.38	2.06
Year N NH3	YES	YES	0.0	0.0	ORG	1.000	WBB	1.000	YES	50.2	Cattle	0.84	0.0	0.0	0.0	0.0	1.7	0.04	0.125	0.20	0.20
1-10 N leach	1.022	1.000	1.000	1.000	21.5	0	11	0	1	16.1	Dairy	2	0.9	0.0	0.0	23	0.0	1.26	0.200	0.38	0.0050
Year 2	23	1	30.7	9.2	5.4 NON	100.0	WWH	1.000	YES	11.1	Cattle	0.67	0.0	0.0	1.1	23	0.2	0.15	0.125	0.15	0.0100
N leach	0.600	1.159	1.000	1.000	2.3	0	11	0.760	1.1	11.1	Dairy	2	0.1	0.0	0.0	23	0.0	0.28	0.200	0.08	0.0050
Year 3	23	1	3.2	1.0	0.6 NON	100.0	WWH	1.000	YES	1.2	Cattle	0.67	0.0	0.0	0.0	23	0.0	0.02	0.125	0.02	0.0100
N leach	0.600	1.159	1.000	1.000	0.2	0	11	0.760	0.1	1.2	Dairy	2	0.0	0.0	0.0	23	0.0	0.03	0.200	0.01	0.0050
Year 4	23	1	0.3	0.1	0.1 NON	100.0	WWH	1.000	YES	0.1	Cattle	0.67	0.0	0.0	0.0	23	0.0	0.00	0.125	0.00	0.0100
N leach	0.600	1.159	1.000	1.000	0.0	0	1	0.760	0.0	0.1	Dairy	2	0.0	0.0	0.0	23	0.0	0.00	0.200	0.00	0.0050
Year 5	23	1	0.0	0.0	0.0 NON	100.0	SBA	1.000	YES	0.0	Cattle	0.65	0.0	0.0	0.0	23	0.0	0.00	0.125	0.00	0.0100
N leach	0.600	1.159	1.000	1.000	0.0	0	109	0.760	0.0	0.0	Dairy	2	0.0	0.0	0.0	23	0.0	0.00	0.200	0.00	0.0050
Year 6	23	1	0.0	0.0	0.0 NON	100.0	WBB	1.000	YES	0.0	Cattle	0.84	0.0	0.0	0.0	23	0.0	0.00	0.125	0.00	0.0100
N leach	0.600	1.159	1.000	1.000	0.0	0	11	0.760	0.0	0.0	Dairy	2	0.0	0.0	0.0	23	0.0	0.00	0.200	0.00	0.0050
Year 7	23	1	0.0	0.0	0.0 NON	100.0	WWH	1.000	YES	0.0	Cattle	0.67	0.0	0.0	0.0	23	0.0	0.00	0.125	0.00	0.0100
N leach	0.600	1.159	1.000	1.000	0.0	0	11	0.760	0.0	0.0	Dairy	2	0.0	0.0	0.0	23	0.0	0.00	0.200	0.00	0.0050
Year 8	23	1	0.0	0.0	0.0 NON	100.0	WWH	1.000	YES	0.0	Cattle	0.67	0.0	0.0	0.0	23	0.0	0.00	0.125	0.00	0.0100
N leach	0.600	1.159	1.000	1.000	0.0	0	11	0.760	0.0	0.0	Dairy	2	0.0	0.0	0.0	23	0.0	0.00	0.200	0.00	0.0050
Year 9	23	1	0.0	0.0	0.0 NON	100.0	WWH	1.000	YES	0.0	Cattle	0.67	0.0	0.0	0.0	23	0.0	0.00	0.125	0.00	0.0100
N leach	0.600	1.159	1.000	1.000	0.0	0	1000	0.760	0.0	0.0	Dairy	2	0.0	0.0	0.0	23	0.0	0.00	0.200	0.00	0.0050
Year 10	23	1	0.0	0.0	0.0 NON	100.0	SBA	1.000	YES	0.0	Cattle	0.65	0.0	0.0	0.0	23	0.0	0.00	0.125	0.00	0.0100
N leach	0.600	1.159	1.000	1.000	0.0	0	1000	0.760	0.0	0.0	Dairy	2	0.0	0.0	0.0	23	0.0	0.00	0.200	0.00	0.0050

N2O-N in food/beverage/fuel/other 0.1799

Year	N	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Year 1	1	0.68	0.08	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.13
Area with crop, ha												

Possible additional non IPCC N2O-N emissions Value 0.0000
 N residues emissions, ratio of N2O-N to N: 0.00
 Increased soil N emissions, kg N2O-N/ha: 1.00
 Natural background emissions, kg N2O-N/ha: 0.68
 Total IPCC and non IPCC N2O 3.89
 Total anthropogenic 3.89
 Total including natural 4.66
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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE CATTLE DAIRY Note 43
 AND CONTINUING WITH MANURE FROM GRAZING CATTLE TO PRODUCE CATTLE DAIRY Note 43

Year Fertilizer/manure N crop Food/ Fuel/ Manure Final N2O-N emission
 # Store Amounts #71/ bev other handling N a- IPCC 1996
 Name 1/0 Store Field 1/0 Or- ganic 1/0 Crop use & # Uses #21-61 # Name mounts Each Total

Total N	RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED													
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3										22.8	22.8	TOTAL N AMOUNTS IN KG AND % LEACHED									
1-10 N leach	0.0658	0.0421											4.5	4.5										
TOTAL	0.0885	0.0550	TOTAL N AMOUNTS IN KG AND %										100.0	100.0										

N2O-N in food/beverage/fuel/other 0.1842

Year N	1	100.0	100.0	0	100	109	0	1	97.8	21	40.0	11.8	0.0	0.0	7.6	24	28.2	1.60	2.02	2.35	4.21	2.61	Note 45
1	Vol/NH3 N	YES	2.2	NON	100.00	WBB	1.000	YES	50.2	Cattle	0.84	0.84	0.0	0.0	0.0	0.0	0.0	0.02	0.04	0.04	0.04	2.02	Note 45
	N leach	1.022	1.000	ORG	1.00	1.000	0.591	7.6	50.2	Dairy	2	2	0.0	0.0	5.0	Graz	0.0	0.38	0.04	1.26	0.0200	0.38	Note 48
Year 2	Vol/NH3 Cattle	YES	28.2	0	100	11	1.000	YES	26.2	21	5.1	1.2	0.0	0.0	1.8	24	3.9	0.36	0.04	0.43	0.93	0.36	Note 47
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.806	19.3	Cattle	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.02	0.02	0.02	0.125	0.02	Note 48
Year 3	Vol/NH3 Cattle	YES	3.9	0	100	11	1.000	YES	3.6	21	0.7	0.2	0.0	0.0	0.2	24	0.5	0.05	0.06	0.06	0.13	0.05	Note 47
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.806	2.7	Cattle	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.125	0.00	Note 48
Year 4	Vol/NH3 Cattle	YES	0.5	0	100	11	1.000	YES	0.5	21	0.1	0.0	0.0	0.0	0.0	24	0.1	0.01	0.01	0.01	0.02	0.01	Note 47
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.806	0.4	Cattle	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.125	0.00	Note 48
Year 5	Vol/NH3 Cattle	YES	0.1	0	100	1	1.000	YES	0.1	21	0.0	0.0	0.0	0.0	0.0	24	0.0	0.00	0.00	0.00	0.0200	0.00	Note 49
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.806	0.0	Dairy	2	2	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.0200	0.00	Note 49
Year 6	Vol/NH3 Cattle	YES	0.0	0	100	109	1.000	YES	0.0	Cattle	0.65	0.65	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.125	0.00	Note 48
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.806	0.0	Dairy	2	2	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.0200	0.00	Note 49
Year 7	Vol/NH3 Cattle	YES	0.0	0	100	11	1.000	YES	0.0	Cattle	0.84	0.84	0.0	0.0	0.0	24	0.0	0.00	0.00	0.00	0.125	0.00	Note 47
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.806	0.0	Dairy	2	2	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.0200	0.00	Note 48
Year 8	Vol/NH3 Cattle	YES	0.0	0	100	11	1.000	YES	0.0	Cattle	0.67	0.67	0.0	0.0	0.0	24	0.0	0.00	0.00	0.00	0.125	0.00	Note 47
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.806	0.0	Dairy	2	2	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.0200	0.00	Note 49
Year 9	Vol/NH3 Cattle	YES	0.0	0	100	11	1.000	YES	0.0	Cattle	0.67	0.67	0.0	0.0	0.0	24	0.0	0.00	0.00	0.00	0.125	0.00	Note 47
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.806	0.0	Dairy	2	2	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.0200	0.00	Note 48
Year 10	Vol/NH3 Cattle	YES	0.0	0	100	1	1.000	YES	0.0	Cattle	0.65	0.65	0.0	0.0	0.0	24	0.0	0.00	0.00	0.00	0.125	0.00	Note 47
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.806	0.0	Dairy	2	2	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.0200	0.00	Note 48

Year Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 Year 9 Year 10 Total Total/year 1

Area with crop, ha 0.68 0.08 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.78 1.14 Note 50

Possible additional non IPCC N2O-N emissions Value
 N residues emissions, ratio of N2O-N to N: 0.0000
 Increased soil N emissions, kg N2O-N/ha: 0.00
 Natural background emissions, kg N2O-N/ha: 1.00 0.68 0.08 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.78 Total including natural 4.99
 Total IPCC and non IPCC N2O 4.21
 Note 51 2.61 Note 51 2.61 Note 51 3.39 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE CATTLE BEEF
 AND CONTINUING WITH SEPARATED CATTLE MANURE TO PRODUCE CATTLE BEEF

Year Fertilizer/manure N crop Food/ Fuel/ Manure Final N2O-N emission
 # Store Amounts # #71/ beV other handling N a- IPCC 1996
 Name 1/0 Store Field 1/0 Or- Nnorm Crop use & # Uses #21-61 Food #72 #8 #9 # Name mounts Each Total

RATIO OF N2O-N TO N IN FIRST CROP		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED													
Year	N NH3	IPCC 1996	IPCC 2006	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Total/year 1
1-10	N leach	0.0604	0.0335	0.068	0.14	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85	1.25
	TOTAL	0.0783	0.0442												

N2O-N in food/beverage/fuel/other

Year	N	Vol/NH3	N	YES	100.0	100.0	100.0	0	100	109	0	1	97.8	22	40.0	10.4	0.0	0.0	7.6	22	29.6	1.58	3.72	1.97	3.72	1.47	2.10	
1	N leach	1.022	1.000	0.0	2.2	NON	100.00	WBB	1.000	YES	1.000	YES	50.2	Cattle	0.84				0.0	Cattle	1.5	0.04	0.0125	1.58	2.87	1.18	1.60	
Year	N	22	1	28.6	26.1	0	100	11	0	1	0	1	19.6	22	6.8	1.4	0.0	0.0	1.3	22	5.4	0.26	0.105	0.24	0.69	0.38	0.0050	
2	N leach	0.867	1.016	2.4	6.5	NON	100.00	WWH	1.000	YES	1.000	YES	11.5	Cattle	0.67				0.0	Cattle	0.3	0.09	0.0125	0.32	0.69	0.09	0.0100	
Year	N	22	1	5.2	4.8	0	100	11	0	1	0	1	3.6	22	1.2	0.3	0.0	0.0	0.2	22	1.0	0.06	0.13	0.04	0.08	0.09	0.0050	
3	N leach	0.867	1.016	0.4	1.2	NON	100.00	WWH	1.000	YES	1.000	YES	2.1	Cattle	0.67				0.0	Cattle	0.0	0.02	0.0125	0.02	0.0125	0.02	0.0100	
Year	N	22	1	0.9	0.9	0	100	11	0	1	0	1	0.6	22	0.2	0.0	0.0	0.0	0.0	22	0.2	0.01	0.02	0.01	0.01	0.01	0.01	
4	N leach	0.867	1.016	0.1	0.2	NON	100.00	WWH	1.000	YES	1.000	YES	0.4	Cattle	0.67				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0100	
Year	N	22	1	0.2	0.2	0	100	1	0	1	0	1	0.1	22	0.0	0.0	0.0	0.0	0.0	22	0.0	0.01	0.0105	0.00	0.0105	0.00	0.0050	
5	N leach	0.867	1.016	0.0	0.0	NON	100.00	SBA	1.000	YES	1.000	YES	0.1	Cattle	0.65				0.0	Cattle	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Year	N	22	1	0.0	0.0	0	100	109	0	1	0	1	0.1	22	0.0	0.0	0.0	0.0	0.0	22	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	N leach	0.867	1.016	0.0	0.0	NON	100.00	WBB	1.000	YES	1.000	YES	0.0	Cattle	0.84				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0100	
Year	N	22	1	0.0	0.0	0	100	11	0	1	0	1	0.0	22	0.0	0.0	0.0	0.0	0.0	22	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0050	
7	N leach	0.867	1.016	0.0	0.0	NON	100.00	WWH	1.000	YES	1.000	YES	0.0	Cattle	0.67				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0100	
Year	N	22	1	0.0	0.0	0	100	11	0	1	0	1	0.0	22	0.0	0.0	0.0	0.0	0.0	22	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0050	
8	N leach	0.867	1.016	0.0	0.0	NON	100.00	WWH	1.000	YES	1.000	YES	0.0	Cattle	0.67				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0100	
Year	N	22	1	0.0	0.0	0	100	11	0	1	0	1	0.0	22	0.0	0.0	0.0	0.0	0.0	22	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0050	
9	N leach	0.867	1.016	0.0	0.0	NON	100.00	WWH	1.000	YES	1.000	YES	0.0	Cattle	0.67				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0100	
Year	N	22	1	0.0	0.0	0	100	1	0	1	0	1	0.0	22	0.0	0.0	0.0	0.0	0.0	22	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0050	
10	N leach	0.867	1.016	0.0	0.0	NON	100.00	SBA	1.000	YES	1.000	YES	0.0	Cattle	0.65				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0100	
Year	N	22	1	0.0	0.0	0	100	1000	0	1	0	1	0.0	22	0.65	2			0.0	0.0	22	0.00	0.0125	0.00	0.0125	0.00	0.0050	

Year Area with crop, ha Value
 Possible additional non IPCC N2O-N emissions
 N residues emissions, ratio of N2O-N to N:
 Increased soil N emissions, kg N2O-N/ha:
 Natural background emissions, kg N2O-N/ha:

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE CATTLE BEEF Note 43
 AND CONTINUING WITH MANURE FROM GRAZING CATTLE TO PRODUCE CATTLE BEEF Note 43

Year Fertilizer/manure N crop Food/ Fuel/ Manure Final N2O-N emission
 # Store Amounts # #71/ be v other handling N a- IPCC 1996
 Name 1/0 Store Field 1/0 Or- Nnorm Crop Straw Cereal Straw Crop use & # Uses #21-61 N2O-N emission
 1/0 1/0 1/0 1/0 ganic propor # # leach use # #71/ be v other # Name mounts Each Total Each Total

RATIO OF N2O-N TO N IN FIRST CROP		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		21.5	21.5
Total N	100.0	100.0	109	29.6	2.08
Year N NH3	0.0	0.0	100.0 WBB	0.0	0.05
1-10 N leach	1.022	1.000	ORG 1.00 1.000	4.6	0.55
	29.6	29.6	2.1 NON 100.00 WWH	73.9	
	4.2	4.2	ORG 1.00 1.000	100.0	
	0.0	0.0	0.3 NON 100.00 WWH		
	1.000	1.000	ORG 1.00 1.000		
	0.6	0.6	0.6 NON 100.00 WWH		
	0.0	0.0	ORG 1.00 1.000		
	1.000	1.000	0.4 NON 100.00 WWH		
	0.1	0.1	ORG 1.00 1.000		
	0.0	0.0	0.0 NON 100.00 SBA		
	1.000	1.000	ORG 1.00 1.000		
	0.0	0.0	0.0 NON 100.00 WBB		
	1.000	1.000	ORG 1.00 1.000		
	0.0	0.0	0.0 NON 100.00 WWH		
	1.000	1.000	ORG 1.00 1.000		
	0.0	0.0	0.0 NON 100.00 WWH		
	1.000	1.000	ORG 1.00 1.000		
	0.0	0.0	0.0 NON 100.00 SBA		
	1.000	1.000	ORG 1.00 1.000		

N2O-N in food/beverage/fuel/other 0.2002 0.1248 Note 46

Year	N	1	100.0	100.0	109	29.6	2.08	2.40	4.30	2.08	2.68
1	Vol/NH3	N	YES	2.2 NON	100.00 WBB	1.000 YES	0.84	0.84	0.02	0.02	1.63
	N leach	1.022	1.000	ORG	1.00 1.000	0.591 7.6	50.2 Cattle	0.0	0.02	0.02	2.03
Year	N	24	29.6	29.6	2.1 NON	100.00 WWH	2	5.0 Graz	1.26	0.38	2.03
2	Vol/NH3	Cattle	YES	2.1 NON	100.00 WWH	1.000 YES	0.67	1.9	0.45	0.38	0.56
	N leach	Graz	0.484	ORG	1.00 1.000	0.806 1.9	20.3 Cattle	0.0	0.02	0.02	0.100
Year	N	24	4.2	4.2	0.3 NON	100.00 WWH	2	1.9 Graz	0.51	0.15	0.200
3	Vol/NH3	Cattle	YES	0.3 NON	100.00 WWH	1.000 YES	0.67	0.3	0.06	0.05	0.08
	N leach	Graz	0.484	ORG	1.00 1.000	0.806 0.3	2.9 Cattle	0.0	0.00	0.00	0.100
Year	N	24	0.6	0.6	0.6 NON	100.00 WWH	2	0.3 Graz	0.07	0.02	0.200
4	Vol/NH3	Cattle	YES	0.6 NON	100.00 WWH	1.000 YES	0.67	0.0	0.01	0.01	0.01
	N leach	Graz	0.484	ORG	1.00 1.000	0.806 0.0	0.4 Cattle	0.0	0.00	0.00	0.100
Year	N	24	0.1	0.1	0.1 NON	100.00 SBA	2	0.0 Graz	0.01	0.00	0.200
5	Vol/NH3	Cattle	YES	0.1 NON	100.00 SBA	1.000 YES	0.65	0.0	0.00	0.00	0.00
	N leach	Graz	0.484	ORG	1.00 1.000	0.806 0.0	0.1 Cattle	0.0	0.00	0.00	0.00
Year	N	24	0.0	0.0	0.0 NON	100.00 WBB	2	0.0 Graz	0.00	0.00	0.00
6	Vol/NH3	Cattle	YES	0.0 NON	100.00 WBB	1.000 YES	0.84	0.0	0.00	0.00	0.00
	N leach	Graz	0.484	ORG	1.00 1.000	0.806 0.0	0.1 Beef	0.0	0.00	0.00	0.00
Year	N	24	0.0	0.0	0.0 NON	100.00 WWH	2	0.0 Cattle	0.00	0.00	0.00
7	Vol/NH3	Cattle	YES	0.0 NON	100.00 WWH	1.000 YES	0.67	0.0	0.00	0.00	0.00
	N leach	Graz	0.484	ORG	1.00 1.000	0.806 0.0	0.0 Beef	0.0	0.00	0.00	0.00
Year	N	24	0.0	0.0	0.0 NON	100.00 WWH	2	0.0 Cattle	0.00	0.00	0.00
8	Vol/NH3	Cattle	YES	0.0 NON	100.00 WWH	1.000 YES	0.67	0.0	0.00	0.00	0.00
	N leach	Graz	0.484	ORG	1.00 1.000	0.806 0.0	0.0 Beef	0.0	0.00	0.00	0.00
Year	N	24	0.0	0.0	0.0 NON	100.00 WWH	2	0.0 Cattle	0.00	0.00	0.00
9	Vol/NH3	Cattle	YES	0.0 NON	100.00 WWH	1.000 YES	0.67	0.0	0.00	0.00	0.00
	N leach	Graz	0.484	ORG	1.00 1.000	0.806 0.0	0.0 Beef	0.0	0.00	0.00	0.00
Year	N	24	0.0	0.0	0.0 NON	100.00 SBA	2	0.0 Cattle	0.00	0.00	0.00
10	Vol/NH3	Cattle	YES	0.0 NON	100.00 SBA	1.000 YES	0.65	0.0	0.00	0.00	0.00
	N leach	Graz	0.484	ORG	1.00 1.000	0.806 0.0	0.0 Beef	0.0	0.00	0.00	0.00

Year Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 Year 9 Year 10 Total Total/year 1

Area with crop, ha 0.68 0.09 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.78 1.15 Note 50

Possible additional non IPCC N2O-N emissions Value
 N residues emissions, ratio of N2O-N to N: 0.0000
 Increased soil N emissions, kg N2O-N/ha: 0.00
 Natural background emissions, kg N2O-N/ha: 1.00
 Total IPCC and non IPCC N2O 4.30
 Total anthropogenic 4.30
 Total including natural 5.08
 Note 51
 Note 51
 Note 51
 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE TO PRODUCE TO PRODUCE TO PRODUCE TO PRODUCE TO PRODUCE
AND CONTINUING WITH SEPARATED PIG MANURE WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR PIG PORK PIG PORK

Year	Fertilizer/manure		Store 1/0	Store	Amounts	Field	Or-ganic 1/0	Norm propor 1/0	Crop #	N crop use & leach	Crop	Straw used 1/0	Cereal benefit 1/0	Fodder: Uses #21-61 Fed	Name	#	Use	Food #71	Food #72	N crop bevs other #9	Fuel/	Food/	Manure handling #	Final N a-	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006	Total	
	Name	#																										
Total N	1	1	100.0	100.0	0	100	109	0	1	97.8	32	40.0	16.7	0.0	0.0	7.6	23.3	27.0	26.9	1.68	3.28	1.29	1.88	1.29	1.88	Note 45		
Year 1-10	N	NH3																									Note 45	
RATIO OF N2O-N TO N IN FIRST CROP TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED																												
ACCORDING TO IPCC 1996 IPCC 2006																												
FIRST YEAR 0.0590 0.0332																												
TOTAL 0.0690 0.0395																												

N2O-N in food/beverage/fuel/other

Year	N	NH3	100.0	100.0	0	100	109	0	1	97.8	32	40.0	16.7	0.0	0.0	7.6	23.3	32	27.0	26.9	1.68	3.28	1.29	1.88	1.29	1.88	Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.0	WBB	1.000	YES	0.84	0.0	0.0	0.0	0.0	0.0	0.0	32	32	15.8	15.7	0.06	0.125	1.14	1.14	1.58	Note 47
	N	leach	1.022	1.000	ORG	1.0	1.000		0.591	7.6	3	3	5.0	5.0	5.0	5.0	4.2	4.2	15.7	15.7	1.26	0.105	0.06	0.06	0.06	0.100	Note 48
Year	N	NH3	Pig	YES	19.5	15.4	0	100	11	11.5	32	4.0	1.7	0.0	0.0	0.8	2.3	32	32	57.7	57.4	0.0	0.43	0.38	0.38	0.0050	Note 49
2	Vol/NH3	Pig	YES	4.2	3.8	NON	100.0	WWH	1.000	YES	0.67	0.67	0.0	0.0	0.0	0.0	0.4	0.4	27.0	26.9	0.17	0.105	0.05	0.05	0.0050	Note 49	
Year	N	leach	Sep	1.024	1.024	ORG	1.0	1.000	0.653	0.8	3	3	0.8	0.8	0.8	0.8	0.2	0.2	100.5	100.0	0.02	0.04	0.01	0.01	0.03	Note 47	
3	Vol/NH3	Pig	YES	0.4	0.4	NON	100.0	WWH	1.000	YES	0.67	0.67	0.0	0.0	0.0	0.0	0.1	0.1	32	32	0.01	0.0125	0.01	0.01	0.0100	Note 48	
Year	N	leach	Sep	1.024	1.024	ORG	1.0	1.000	0.653	0.1	3	3	0.1	0.1	0.1	0.1	0.0	0.0	57.7	57.4	0.02	0.0105	0.01	0.01	0.0050	Note 49	
4	Vol/NH3	Pig	YES	0.0	0.2	0.2	0	100	11	0.1	32	0.0	0.0	0.0	0.0	0.0	0.0	32	32	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	Note 47
Year	N	leach	Sep	1.024	1.024	ORG	1.0	1.000	0.653	0.0	3	3	0.0	0.0	0.0	0.0	0.0	32	32	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	Note 48
5	Vol/NH3	Pig	YES	0.0	0.0	NON	100.0	SBA	1.000	YES	0.65	0.65	0.0	0.0	0.0	0.0	0.0	32	32	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	Note 49
Year	N	leach	Sep	1.024	1.024	ORG	1.0	1.000	0.653	0.0	3	3	0.0	0.0	0.0	0.0	0.0	32	32	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	Note 47
6	Vol/NH3	Pig	YES	0.0	0.0	NON	100.0	WBB	1.000	YES	0.84	0.84	0.0	0.0	0.0	0.0	0.0	32	32	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	Note 48
Year	N	leach	Sep	1.024	1.024	ORG	1.0	1.000	0.653	0.0	3	3	0.0	0.0	0.0	0.0	0.0	32	32	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	Note 49
7	Vol/NH3	Pig	YES	0.0	0.0	NON	100.0	WWH	1.000	YES	0.67	0.67	0.0	0.0	0.0	0.0	0.0	32	32	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	Note 47
Year	N	leach	Sep	1.024	1.024	ORG	1.0	1.000	0.653	0.0	3	3	0.0	0.0	0.0	0.0	0.0	32	32	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	Note 48
8	Vol/NH3	Pig	YES	0.0	0.0	NON	100.0	WWH	1.000	YES	0.67	0.67	0.0	0.0	0.0	0.0	0.0	32	32	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	Note 47
Year	N	leach	Sep	1.024	1.024	ORG	1.0	1.000	0.653	0.0	3	3	0.0	0.0	0.0	0.0	0.0	32	32	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	Note 48
9	Vol/NH3	Pig	YES	0.0	0.0	NON	100.0	WWH	1.000	YES	0.67	0.67	0.0	0.0	0.0	0.0	0.0	32	32	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	Note 47
Year	N	leach	Sep	1.024	1.024	ORG	1.0	1.000	0.653	0.0	3	3	0.0	0.0	0.0	0.0	0.0	32	32	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	Note 48
10	Vol/NH3	Pig	YES	0.0	0.0	NON	100.0	SBA	1.000	YES	0.65	0.65	0.0	0.0	0.0	0.0	0.0	32	32	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	Note 47
Year	N	leach	Sep	1.024	1.024	ORG	1.0	1.000	0.653	0.0	3	3	0.0	0.0	0.0	0.0	0.0	32	32	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	Note 48

Year	Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 Year 9 Year 10 Total Total/year 1																								Total				
Area with crop, ha	0.68	0.08	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.14
Possible additional non IPCC N2O-N emissions	Value																								Kind of source				
N residues emissions, ratio of N2O-N to N:	0.0000																								0.00 Current crops				
Increased soil N emissions, kg N2O-N/ha:	0.00																								0.00 Total anthropogenic				
Natural background emissions, kg N2O-N/ha:	1.00																								0.77 Total including natural				
Total IPCC and non IPCC N2O	3.28																								3.28				
Total N2O-N	4.05																								4.05				

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE Cereal Straw Crop Crop Fuel/ Fuel/ N2O-N emission N2O-N emission
 AND CONTINUING WITH PIG DEEP LITTER TO PRODUCE benefit used & use # #71/ be# other #9 IPCC 1996 IPCC 2006
 Name 1/0 Store Amounts Field 1/0 Or- Nnorm Crop Crop Name Fed Food #72 #8 #9 # Name mounts Each Total Each Total

Year	Fertilizer/manure #	Store 1/0	Amounts 1/0	Field 1/0	Or-ganic 1/0	Nnorm 1/0	Crop #	Straw used 1/0	use & leach 1/0	Name	Use #	Feeder: Uses #21-61	Food #72	Food #8	Fuel/ other #9	Manure handling #	Final N a-	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006					
RATIO OF N2O-N TO N IN FIRST CROP TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED ACCORDING TO IPCC 1996 IPCC 2006 26.3 25.7 FIRST YEAR 0.0625 0.0333 20.2 19.8 TOTAL 0.0713 0.0391 55.8 54.5 TOTAL N AMOUNTS IN KG AND % LEACHED 102.4 100.0																								
Year 1	1	1	100.0	100.0	2.2 NON	0	100	0	1	97.8	32	40.0	16.7	0.0	0.0	7.6	33	23.3	1.63	3.39	1.79	3.39	1.24	1.86
N leach			1.022	1.000	ORG	1.000	YES	1.000	YES	50.2 Pig	0.84	0.84	0.0	0.0	0.0	0.0	Pig	5.8	0.08	0.0125	0.08	0.0125	0.08	0.0100
Year 2	33	1	19.7	11.8	0	100	11	0	1	8.9	32	3.1	1.3	0.0	0.0	0.6	33	1.8	1.26	0.0200	1.14	0.39	0.10	0.25
N leach			0.867	1.127	ORG	1.000	WWWH	1.000	YES	5.2 Pig	0.67	0.67	0.0	0.0	0.0	0.0	Pig	0.4	0.11	0.0125	0.11	0.0125	0.11	0.0100
Year 3	33	1	1.5	0.9	0	100	11	0	1	0.7	32	0.2	0.1	0.0	0.0	0.0	33	0.0	0.01	0.03	0.01	0.03	0.01	0.02
N leach			0.867	1.127	ORG	1.000	WWWH	1.000	YES	0.4 Pig	0.67	0.67	0.0	0.0	0.0	0.0	Pig	0.0	0.01	0.0125	0.01	0.0125	0.01	0.0100
Year 4	33	1	0.1	0.1	0	100	11	0	1	0.1	32	0.0	0.0	0.0	0.0	0.0	33	0.0	0.01	0.0200	0.00	0.00	0.00	0.0050
N leach			0.867	1.127	ORG	1.000	WWWH	1.000	YES	0.0 Pig	0.67	0.67	0.0	0.0	0.0	0.0	Pig	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0100
Year 5	33	1	0.0	0.0	0	100	1	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	33	0.0	0.00	0.0200	0.00	0.00	0.00	0.0050
N leach			0.867	1.127	ORG	1.000	1.000	1.000	0.0	0.0 Pig	0.65	0.65	0.0	0.0	0.0	0.0	Pig	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0100
Year 6	33	1	0.0	0.0	0	100	109	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	33	0.0	0.00	0.0200	0.00	0.00	0.00	0.0050
N leach			0.867	1.127	ORG	1.000	1.000	1.000	0.0	0.0 Pig	0.84	0.84	0.0	0.0	0.0	0.0	Pig	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0100
Year 7	33	1	0.0	0.0	0	100	11	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	33	0.0	0.00	0.0200	0.00	0.00	0.00	0.0050
N leach			0.867	1.127	ORG	1.000	1.000	1.000	0.0	0.0 Pig	0.67	0.67	0.0	0.0	0.0	0.0	Pig	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0100
Year 8	33	1	0.0	0.0	0	100	11	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	33	0.0	0.00	0.0200	0.00	0.00	0.00	0.0050
N leach			0.867	1.127	ORG	1.000	WWWH	1.000	YES	0.0 Pig	0.67	0.67	0.0	0.0	0.0	0.0	Pig	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0100
Year 9	33	1	0.0	0.0	0	100	11	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	33	0.0	0.00	0.0200	0.00	0.00	0.00	0.0050
N leach			0.867	1.127	ORG	1.000	1.000	1.000	0.0	0.0 Pig	0.67	0.67	0.0	0.0	0.0	0.0	Pig	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0100
Year 10	33	1	0.0	0.0	0	100	1	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	33	0.0	0.00	0.0200	0.00	0.00	0.00	0.0050
N leach			0.867	1.127	ORG	1.000	SBA	1.000	YES	0.0 Pig	0.65	0.65	0.0	0.0	0.0	0.0	Pig	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0100

N2O-N in food/beverage/fuel/other 0.1288

Year	Area with crop, ha	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Total/year 1
Year 1	1	0.68	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	1.10
Year 2	33	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Year 3	33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Year 4	33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Year 5	33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Year 6	33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Year 7	33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Year 8	33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Year 9	33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Year 10	33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Possible additional non IPCC N2O-N emissions Value 1.00
 N residues emissions, ratio of N2O-N to N: 0.0000
 Increased soil N emissions, kg N2O-N/ha: 0.00
 Natural background emissions, kg N2O-N/ha: 1.00
 Total IPCC and non IPCC N2O 3.39
 Total anthropogenic 3.39
 Total including natural 4.14
 Note 51 1.86
 Note 51 1.86
 Note 51 2.61

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE Cereal Straw Crop Use Fodder: Fuel/ Pig PORK
 AND CONTINUING WITH MANURE FROM ROOTING PIGS TO PRODUCE benefit used & leach use # Uses #21-61 #71/ beq other handling N a-
 MANURE FROM ROOTING PIGS WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR # Name mounts Final

Year Fertilizer/manure Or- Nnorm Crop Crop Use Fodder: Fuel/ Manure Final
 # Store Amounts ganic propor # # #71/ beq other #9 # Name mounts handling N a-
 Name 1/0 Store Field 1/0 1/0 Name 1/0 Name Name Fed Food #72 #8 #9 # Name mounts Final

Total N	RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED																
Year	N NH3	1-10	N leach	IPCC 1996	IPCC 2006	IPCC 1996	IPCC 2006	0.0637	0.0401	0.0507	100.0	0	100	109	1000 YES	0	1	97.8	32	40.0	16.7	0.0	0.0	7.6	34	23.3	29.0
Year 1	Vol/NH3	N	YES	2.2	NON	100.00	WBB	1.000	YES	1.000	YES	1.000	YES	1.000	YES	0	1	50.2	Pig	0.84	0.0	0.0	0.0	0.0	0.0	0.0	4.1
Year 2	Vol/NH3	Pig	YES	23.3	0	100	11	0.591	7.6	0.591	7.6	0	1	21.7	0	1	21.7	32	6.1	2.5	0.0	0.0	0.0	1.5	34	3.5	
Year 3	Vol/NH3	Root	YES	1.6	NON	100.00	WWH	1.000	YES	1.000	YES	1.000	YES	1.000	YES	0.720	1.5	14.1	Pig	0.67	0.0	0.0	0.0	0.0	0.0	0.0	4.1
Year 4	Vol/NH3	Root	YES	3.5	0	100	11	1.000	YES	1.000	YES	1.000	YES	1.000	YES	0.720	0.2	2.1	Pig	0.67	0.0	0.0	0.0	0.0	0.0	0.0	4.1
Year 5	Vol/NH3	Root	YES	0.2	NON	100.00	WWH	1.000	YES	1.000	YES	1.000	YES	1.000	YES	0.720	0.0	2.1	Pig	0.67	0.0	0.0	0.0	0.0	0.0	0.0	4.1
Year 6	Vol/NH3	Root	YES	0.5	0	100	11	1.000	YES	1.000	YES	1.000	YES	1.000	YES	0.720	0.0	0.3	Pig	0.67	0.0	0.0	0.0	0.0	0.0	0.0	4.1
Year 7	Vol/NH3	Root	YES	0.0	NON	100.00	SBA	1.000	YES	1.000	YES	1.000	YES	1.000	YES	0.720	0.0	0.3	Pig	0.65	0.0	0.0	0.0	0.0	0.0	0.0	4.1
Year 8	Vol/NH3	Root	YES	0.0	NON	100.00	WBB	1.000	YES	1.000	YES	1.000	YES	1.000	YES	0.720	0.0	0.0	Pig	0.84	0.0	0.0	0.0	0.0	0.0	0.0	4.1
Year 9	Vol/NH3	Root	YES	0.0	NON	100.00	WWH	1.000	YES	1.000	YES	1.000	YES	1.000	YES	0.720	0.0	0.0	Pig	0.84	0.0	0.0	0.0	0.0	0.0	0.0	4.1
Year 10	Vol/NH3	Root	YES	0.0	NON	100.00	WBB	1.000	YES	1.000	YES	1.000	YES	1.000	YES	0.720	0.0	0.0	Pig	0.67	0.0	0.0	0.0	0.0	0.0	0.0	4.1
Year 11	Vol/NH3	Root	YES	0.0	NON	100.00	WWH	1.000	YES	1.000	YES	1.000	YES	1.000	YES	0.720	0.0	0.0	Pig	0.67	0.0	0.0	0.0	0.0	0.0	0.0	4.1
Year 12	Vol/NH3	Root	YES	0.0	NON	100.00	SBA	1.000	YES	1.000	YES	1.000	YES	1.000	YES	0.720	0.0	0.0	Pig	0.65	0.0	0.0	0.0	0.0	0.0	0.0	4.1
Year 13	Vol/NH3	Root	YES	0.0	NON	100.00	WBB	1.000	YES	1.000	YES	1.000	YES	1.000	YES	0.720	0.0	0.0	Pig	0.65	0.0	0.0	0.0	0.0	0.0	0.0	4.1

N2O-N in food/beverage/fuel/other 0.1340

Year	Vol/NH3	N	YES	1.51	3.03	1.75	3.03	1.51	3.03	2.17	3.89	1.87	2.41	Note 45
Year 1	Vol/NH3	N	YES	0.02	0.0125	0.02	0.0125	0.02	0.0125	0.04	0.04	0.04	0.04	Note 45
Year 2	Vol/NH3	Pig	YES	0.38	0.0200	0.38	0.0200	0.38	0.0200	1.67	1.67	0.50	0.50	Note 45
Year 3	Vol/NH3	Root	YES	0.02	0.0125	0.02	0.0125	0.02	0.0125	0.00	0.00	0.00	0.00	Note 45
Year 4	Vol/NH3	Root	YES	0.11	0.0200	0.11	0.0200	0.11	0.0200	0.00	0.00	0.00	0.00	Note 45
Year 5	Vol/NH3	Root	YES	0.05	0.0125	0.05	0.0125	0.05	0.0125	0.00	0.00	0.00	0.00	Note 45
Year 6	Vol/NH3	Root	YES	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.00	0.00	0.00	Note 45
Year 7	Vol/NH3	Root	YES	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.00	0.00	0.00	Note 45
Year 8	Vol/NH3	Root	YES	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.00	0.00	0.00	Note 45
Year 9	Vol/NH3	Root	YES	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.00	0.00	0.00	Note 45
Year 10	Vol/NH3	Root	YES	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.00	0.00	0.00	Note 45
Year 11	Vol/NH3	Root	YES	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.00	0.00	0.00	Note 45
Year 12	Vol/NH3	Root	YES	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.00	0.00	0.00	Note 45
Year 13	Vol/NH3	Root	YES	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.00	0.00	0.00	Note 45

Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 Year 9 Year 10 Total Total/year 1

Area with crop, ha 0.68 0.10 0.02 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.80 1.18

Possible additional non IPCC N2O-N emissions Value 0.0000
 N residues emissions, ratio of N2O-N to N: 0.00
 Increased soil N emissions, kg N2O-N/ha: 1.00
 Natural background emissions, kg N2O-N/ha: 0.68

Total IPCC and non IPCC N2O 3.89
 Total anthropogenic 3.89
 Total including natural 4.69
 Note 51 2.41
 Note 51 2.41
 Note 51 3.21

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE Cereal Straw Crop Fuel/ Fuel/ N2O-N emission N2O-N emission
 AND CONTINUING WITH LIQUID POULTRY MANURE TO PRODUCE benefit used & leach use # #71/ bev other IPCC 1996 IPCC 2006
 POULTRY MEAT POULTRY MEAT
 # Store Amounts Field 1/0 Or- Nnorm Crop use & #71/ bev other # Name mounts Each Total Each Total

Year	Fertilizer/manure #	Store 1/0	Amounts	Field 1/0	Or- ganic 1/0	Nnorm propor 1/0	Crop #	use & leach	Fuel/ #	Fuel/ bev #	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006											
Total N	1	1	100.0	100.0	0	100	109	0	1	97.8	42	40.0	20.4	0.0	0.0	7.6	41	19.6	31.5	1.50	3.07	1.30	1.84
Year 1-10	N leach	1.022	1.000	0.0	2.2	NON	100.00	WBB	1.000	YES	1.000	0.84	0.84	0.0	0.0	50.2	Poultry	2.0	9.7	0.10	0.10	0.10	0.10
	N leach	41	1	17.6	17.3	0	100	11	0	1	13.0	4.5	2.3	0.0	0.0	5.0	Liquid	0.0	9.7	1.47	1.47	0.44	0.44
	Poultry YES	0.867	1.000	0.4	4.3	NON	100.00	WWH	1.000	YES	1.000	0.67	0.67	0.0	0.0	7.6	Poultry	0.2	58.8	0.00	0.00	0.00	0.00
	Liquid	0.867	1.000	1.000	1.9	0	100	11	0	1	7.6	4	0.3	0.0	0.0	0.9	Liquid	0.0	100.0	0.00	0.00	0.00	0.00
	Poultry YES	0.867	1.000	0.0	0.5	NON	100.00	WWH	1.000	YES	1.000	0.67	0.67	0.0	0.0	0.9	Poultry	0.0	58.8	0.00	0.00	0.00	0.00
	Liquid	0.867	1.000	1.000	0.2	0	100	11	0	1	0.9	4	0.5	0.0	0.0	0.1	Liquid	0.0	100.0	0.00	0.00	0.00	0.00
	Poultry YES	0.867	1.000	0.2	0.1	NON	100.00	WWH	1.000	YES	1.000	0.67	0.67	0.0	0.0	0.1	Poultry	0.0	58.8	0.00	0.00	0.00	0.00
	Liquid	0.867	1.000	1.000	0.1	NON	100.00	WWH	1.000	YES	1.000	0.65	0.65	0.0	0.0	0.1	Liquid	0.0	100.0	0.00	0.00	0.00	0.00
	Poultry YES	0.867	1.000	0.0	0.0	NON	100.00	SBA	1.000	YES	1.000	0.65	0.65	0.0	0.0	0.0	Poultry	0.0	58.8	0.00	0.00	0.00	0.00
	Liquid	0.867	1.000	1.000	0.0	NON	100.00	WWH	1.000	YES	1.000	0.65	0.65	0.0	0.0	0.0	Liquid	0.0	100.0	0.00	0.00	0.00	0.00
	Poultry YES	0.867	1.000	0.0	0.0	NON	100.00	WBB	1.000	YES	1.000	0.84	0.84	0.0	0.0	0.0	Poultry	0.0	58.8	0.00	0.00	0.00	0.00
	Liquid	0.867	1.000	1.000	0.0	NON	100.00	WBB	1.000	YES	1.000	0.84	0.84	0.0	0.0	0.0	Liquid	0.0	100.0	0.00	0.00	0.00	0.00
	Poultry YES	0.867	1.000	0.0	0.0	NON	100.00	WWH	1.000	YES	1.000	0.67	0.67	0.0	0.0	0.0	Poultry	0.0	58.8	0.00	0.00	0.00	0.00
	Liquid	0.867	1.000	1.000	0.0	NON	100.00	WWH	1.000	YES	1.000	0.67	0.67	0.0	0.0	0.0	Liquid	0.0	100.0	0.00	0.00	0.00	0.00
	Poultry YES	0.867	1.000	0.0	0.0	NON	100.00	WBB	1.000	YES	1.000	0.67	0.67	0.0	0.0	0.0	Poultry	0.0	58.8	0.00	0.00	0.00	0.00
	Liquid	0.867	1.000	1.000	0.0	NON	100.00	WBB	1.000	YES	1.000	0.67	0.67	0.0	0.0	0.0	Liquid	0.0	100.0	0.00	0.00	0.00	0.00
	Poultry YES	0.867	1.000	0.0	0.0	NON	100.00	WWH	1.000	YES	1.000	0.65	0.65	0.0	0.0	0.0	Poultry	0.0	58.8	0.00	0.00	0.00	0.00
	Liquid	0.867	1.000	1.000	0.0	NON	100.00	SBA	1.000	YES	1.000	0.65	0.65	0.0	0.0	0.0	Liquid	0.0	100.0	0.00	0.00	0.00	0.00

N2O-N in food/beverage/fuel/other

Year	Vol/NH3	N leach	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Total/year 1
1	1	1	0.68	0.09	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.79	1.15
2	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Area with crop, ha
 Possible additional non IPCC N2O-N emissions
 N residues emissions, ratio of N2O-N to N:
 Increased soil N emissions, kg N2O-N/ha:
 Natural background emissions, kg N2O-N/ha:

Value	Kind of source	Total IPCC and non IPCC N2O
0.0000	0.00 Current crops	3.07
0.00	0.00 Total anthropogenic	3.07
1.00	0.79 Total including natural	3.85
		Note 50
		Note 51
		1.84 Note 51
		2.62 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE Cereal Straw Crop Fuel/ Fuel/ N2O-N emission N2O-N emission
 AND CONTINUING WITH SEPARATED POULTRY MANURE TO PRODUCE use & use #71/ bevs other IPCC 1996 IPCC 2006
 POULTRY MEAT POULTRY MEAT

Year Fertilizer/manure Or- Nnorm Crop Crop Fuel/ Fuel/ N2O-N emission N2O-N emission
 # Store Amounts ganic propor # use & use #71/ bevs other IPCC 1996 IPCC 2006
 Name 1/0 Store Field 1/0 Name 1/0 leach 1/0 Name Fed Food #72 #8 #9 # Name mounts Each Total Each Total

Total N	RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED									
Year N NH3	100.0	0	100	109	0	1	97.8	42	40.0	20.4	0.0	0.0	7.6	42	19.6	1.59	3.13	1.23	1.79	Note 45
1-10 N leach	0.0582	0.0582	0.0329	0.0376	1.000	YES	50.2	Poultry	0.84	0.84	0.0	0.0	0.0	0.0	4.9	0.13	0.13	0.13	Note 45	
TOTAL	0.0658	0.0658	0.0376	0.0376	1.000	YES	50.2	Meat	4	4	0.0	0.0	5.0	Sep	0.0	1.41	1.41	0.42	Note 45	

TOTAL N AMOUNTS IN KG AND % LEACHED

Year N	1	100.0	0	100	109	0	1	97.8	42	40.0	20.4	0.0	0.0	7.6	42	19.6	1.44	2.77	1.11	1.56	Note 47
1	Vol/NH3	N	YES	2.2	NON	100.00	WBB	1.000	YES	1.000	YES	0.591	7.6	50.2	Poultry	0.0	0.07	0.0125	0.07	0.0100	Note 48
Year N	leach	1.022	1.000	1.000	1.000	1.000	1.000	0.591	7.6	4	4	0.0	0.0	5.0	Sep	0.0	1.26	0.0105	0.38	0.0050	Note 49
Year 2	Vol/NH3	Poultry	YES	2.2	3.1	NON	100.00	WWH	1.000	YES	1.000	YES	0.6	42	1.6	0.06	0.0125	0.06	0.0100	Note 48	
Year N	leach	Sep	0.867	1.000	1.000	1.000	1.000	0.653	0.6	4	4	0.0	0.0	0.6	Sep	0.0	0.14	0.0105	0.04	0.0050	Note 49
Year 3	Vol/NH3	Poultry	YES	0.2	0.3	NON	100.00	WWH	1.000	YES	1.000	YES	0.1	42	0.1	0.01	0.03	0.01	0.02	Note 47	
Year N	leach	Sep	0.867	1.000	1.000	1.000	1.000	0.653	0.1	4	4	0.0	0.0	0.1	Sep	0.0	0.00	0.0125	0.00	0.0100	Note 48
Year 4	Vol/NH3	Poultry	YES	0.0	0.1	0.1	0.1	1.000	YES	1.000	YES	0.0	0.0	0.0	42	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year N	leach	Sep	0.867	1.000	1.000	1.000	1.000	0.653	0.0	4	4	0.0	0.0	0.0	Sep	0.0	0.00	0.0125	0.00	0.0100	Note 48
Year 5	Vol/NH3	Poultry	YES	0.0	0.0	0.0	0.0	1.000	YES	1.000	YES	0.0	0.0	0.0	42	0.0	0.00	0.00	0.00	0.0050	Note 49
Year N	leach	Sep	0.867	1.000	1.000	1.000	1.000	0.653	0.0	4	4	0.0	0.0	0.0	Sep	0.0	0.00	0.0105	0.00	0.0100	Note 48
Year 6	Vol/NH3	Poultry	YES	0.0	0.0	0.0	0.0	1.000	YES	1.000	YES	0.0	0.0	0.0	42	0.0	0.00	0.00	0.00	0.0050	Note 49
Year N	leach	Sep	0.867	1.000	1.000	1.000	1.000	0.653	0.0	4	4	0.0	0.0	0.0	Sep	0.0	0.00	0.0105	0.00	0.0100	Note 48
Year 7	Vol/NH3	Poultry	YES	0.0	0.0	0.0	0.0	1.000	YES	1.000	YES	0.0	0.0	0.0	42	0.0	0.00	0.00	0.00	0.0050	Note 49
Year N	leach	Sep	0.867	1.000	1.000	1.000	1.000	0.653	0.0	4	4	0.0	0.0	0.0	Sep	0.0	0.00	0.0105	0.00	0.0100	Note 48
Year 8	Vol/NH3	Poultry	YES	0.0	0.0	0.0	0.0	1.000	YES	1.000	YES	0.0	0.0	0.0	42	0.0	0.00	0.00	0.00	0.0050	Note 49
Year N	leach	Sep	0.867	1.000	1.000	1.000	1.000	0.653	0.0	4	4	0.0	0.0	0.0	Sep	0.0	0.00	0.0105	0.00	0.0100	Note 48
Year 9	Vol/NH3	Poultry	YES	0.0	0.0	0.0	0.0	1.000	YES	1.000	YES	0.0	0.0	0.0	42	0.0	0.00	0.00	0.00	0.0050	Note 49
Year N	leach	Sep	0.867	1.000	1.000	1.000	1.000	0.653	0.0	4	4	0.0	0.0	0.0	Sep	0.0	0.00	0.0105	0.00	0.0100	Note 48
Year 10	Vol/NH3	Poultry	YES	0.0	0.0	0.0	0.0	1.000	YES	1.000	YES	0.0	0.0	0.0	42	0.0	0.00	0.00	0.00	0.0050	Note 49
Year N	leach	Sep	0.867	1.000	1.000	1.000	1.000	0.653	0.0	4	4	0.0	0.0	0.0	Sep	0.0	0.00	0.0105	0.00	0.0100	Note 48

Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 Year 9 Year 10 Total Total/year 1

Area with crop, ha 0.68 0.07 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.75 1.11 Note 50

Possible additional non IPCC N2O-N emissions Value 0.0000
 N residues emissions, ratio of N2O-N to N: 0.00
 Increased soil N emissions, kg N2O-N/ha: 1.00
 Natural background emissions, kg N2O-N/ha: 0.68
 Total IPCC and non IPCC N2O 3.13
 Total anthropogenic 3.13
 Total including natural 3.88
 Note 51
 1.79 Note 51
 1.79 Note 51
 2.54 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE TO PRODUCE
 AND CONTINUING WITH POULTRY DEEP LITTER POULTRY MEAT POULTRY MEAT

Year Fertilizer/manure # Store Amounts Field Name 1/0 Store 1/0 Or-ganic 1/0 Nnorm propor-tion, % Crop use & leach Straw used 1/0 Cereal benefit 1/0 N crop #71/ #72 Food #72 Fuel/ bev #8 other #9 Manure handling # Name Final N a- mounts N2O-N emission IPCC 1996 N2O-N emission IPCC 2006 Total Each Total Note 43 Note 43 Note 44 Note 44 Note 44

Total N	RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED										29.4	29.4
Year N NH3	IPCC 1996										IPCC 2006										15.2	15.1
1-10 N leach	0.0605										0.0332										55.6	55.5
TOTAL	0.0668										0.0369										100.2	100.0

N2O-N in food/beverage/fuel/other

Year N	1	100.0	100.0	0	100	109	0	1	97.8	42	40.0	20.4	0.0	0.0	7.6	43	19.6	1.52	3.18	1.19	1.75	Note 45
1	Vol/NH3 N	YES	0.0	2.2	NON	100.00	WBB	1.000	YES	1.000	0.84	0.84	0.0	0.0	0.0	50.2	Poultry	0.10	0.0125	0.10	0.0100	Note 47
	N leach	1.022	1.000	ORG	1.00	1.000	0.591	7.6	50.2	Meat	4	5.0	Deep	0.0	1.26	0.0200	0.38	0.0050	0.38	0.0050	Note 48	
Year N	2	11.9	9.8	0	100	11	0	1	7.4	42	1.8	0.9	0.0	0.0	0.5	43	0.9	0.11	0.29	0.08	0.17	Note 47
	Vol/NH3	Poultry YES	2.1	2.5	NON	100.00	WWH	1.000	YES	1.000	0.67	0.67	0.0	0.0	0.0	0.0	0.3	0.05	0.125	0.05	0.0100	Note 48
	N leach	Deep	0.600	1.013	ORG	1.00	1.000	0.760	0.5	5.1	Meat	4	0.5	Deep	0.0	0.13	0.0200	0.04	0.0050	0.04	0.0050	Note 49
Year N	3	0.5	0.4	0	100	11	0	1	0.3	42	0.1	0.0	0.0	0.0	0.0	43	0.0	0.00	0.01	0.00	0.01	Note 47
	Vol/NH3	Poultry YES	0.1	0.1	NON	100.00	WWH	1.000	YES	1.000	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.013	ORG	1.00	1.000	0.760	0.0	0.2	Meat	4	0.2	Meat	0.0	0.01	0.0200	0.00	0.0050	0.00	0.0050	Note 49
Year N	4	0.0	0.0	0	100	11	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.00	0.00	0.00	Note 47
	Vol/NH3	Poultry YES	0.0	0.0	NON	100.00	WWH	1.000	YES	1.000	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.013	ORG	1.00	1.000	0.760	0.0	0.0	Meat	4	0.0	Meat	0.0	0.00	0.0200	0.00	0.0050	0.00	0.0050	Note 49
Year N	5	0.0	0.0	0	100	1	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.00	0.00	0.00	Note 47
	Vol/NH3	Poultry YES	0.0	0.0	NON	100.00	SBA	1.000	YES	1.000	0.65	0.65	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.013	ORG	1.00	1.000	0.760	0.0	0.0	Meat	4	0.0	Meat	0.0	0.00	0.0200	0.00	0.0050	0.00	0.0050	Note 49
Year N	6	0.0	0.0	0	100	109	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.00	0.00	0.00	Note 47
	Vol/NH3	Poultry YES	0.0	0.0	NON	100.00	WBB	1.000	YES	1.000	0.84	0.84	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.013	ORG	1.00	1.000	0.760	0.0	0.0	Meat	4	0.0	Meat	0.0	0.00	0.0200	0.00	0.0050	0.00	0.0050	Note 49
Year N	7	0.0	0.0	0	100	11	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.00	0.00	0.00	Note 47
	Vol/NH3	Poultry YES	0.0	0.0	NON	100.00	WWH	1.000	YES	1.000	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.013	ORG	1.00	1.000	0.760	0.0	0.0	Meat	4	0.0	Meat	0.0	0.00	0.0200	0.00	0.0050	0.00	0.0050	Note 49
Year N	8	0.0	0.0	0	100	11	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.00	0.00	0.00	Note 47
	Vol/NH3	Poultry YES	0.0	0.0	NON	100.00	WWH	1.000	YES	1.000	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.013	ORG	1.00	1.000	0.760	0.0	0.0	Meat	4	0.0	Meat	0.0	0.00	0.0200	0.00	0.0050	0.00	0.0050	Note 49
Year N	9	0.0	0.0	0	100	11	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.00	0.00	0.00	Note 47
	Vol/NH3	Poultry YES	0.0	0.0	NON	100.00	WWH	1.000	YES	1.000	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.013	ORG	1.00	1.000	0.760	0.0	0.0	Meat	4	0.0	Meat	0.0	0.00	0.0200	0.00	0.0050	0.00	0.0050	Note 49
Year N	10	0.0	0.0	0	100	1	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.00	0.00	0.00	Note 47
	Vol/NH3	Poultry YES	0.0	0.0	NON	100.00	SBA	1.000	YES	1.000	0.65	0.65	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.013	ORG	1.00	1.000	0.760	0.0	0.0	Meat	4	0.0	Meat	0.0	0.00	0.0200	0.00	0.0050	0.00	0.0050	Note 49

Year Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 Year 9 Year 10 Total Total/year 1

Area with crop, ha 0.68 0.04 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.72 1.06 Note 50

Possible additional non IPCC N2O-N emissions Value 0.0000 Kind of source
 N residues emissions, ratio of N2O-N to N: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 Current crops
 Increased soil N emissions, kg N2O-N/ha: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 Total anthropogenic
 Natural background emissions, kg N2O-N/ha: 1.00 0.68 0.04 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.72 Total including natural
 Total IPCC and non IPCC N2O 3.18
 Note 51 1.75 Note 51
 Note 51 1.75 Note 51
 Note 51 2.47 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE TO PRODUCE
 AND CONTINUING WITH MANURE FROM SCRAPING POULTRY TO PRODUCE WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR POULTRY MEAT

Year	Fertilizer/manure #	Store Name	Amounts 1/0	Field 1/0	Or-ganic 1/0	Nnorm propor 1/0	Crop # Name	Straw used 1/0	Crop leach 1/0	Use # Name	Fodder: Uses #21-61 Fed	N crop #71/ bevs #72	Fuel/other #9	Manure handling # Name	Final N a-mounts	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006	Total
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Total N	RATIO OF N2O-N TO N IN FIRST CROP															TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		
Year 1-10	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3													31.3	31.3	
N leach	0.0621	0.0385	TOTAL N AMOUNTS IN KG AND % LEACHED													65.0	65.0	
N leach	0.0766	0.0465	TOTAL N AMOUNTS IN KG AND %													100.0	100.0	

N2O-N in food/beverage/fuel/other

Year	Vol/NH3	N	YES	100.0	100.0	0	100	109	0	1	97.8	42	40.0	20.4	0.0	0.0	7.6	44	19.6	1.68	2.96	1.43	1.69	3.64
1	N leach	1.022	1.000	0.0	2.2	NON	100.00	WBB	1.000	YES	50.2	Poultry	0.84	0.84	0.0	0.0	0.0	0.0	0.0	0.02	0.0125	0.02	0.04	0.04
Year 2	N leach	44	1.000	19.6	0	1	100	11	0	1	18.2	42	3.5	1.8	0.0	0.0	1.3	44	1.7	0.26	0.0200	0.38	1.62	0.49
Year 3	N leach	44	1.000	1.4	NON	100.00	WWH	1.000	YES	13.4	Poultry	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.0125	0.01	0.04	0.04
Year 4	N leach	44	1.000	1.7	0	1	100	11	0	1	1.6	42	0.3	0.2	0.0	0.0	0.1	44	0.2	0.02	0.06	0.02	0.04	0.04
Year 5	N leach	44	1.000	0.1	NON	100.00	WWH	1.000	YES	1.2	Poultry	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.04	0.04
Year 6	N leach	44	1.000	0.2	0	1	100	11	0	1	0.1	42	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.0200	0.00	0.04	0.04
Year 7	N leach	44	1.000	0.0	NON	100.00	WBB	1.000	YES	0.1	Poultry	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.04	0.04
Year 8	N leach	44	1.000	0.0	NON	100.00	SBA	1.000	YES	0.0	Poultry	0.65	0.65	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.0200	0.00	0.04	0.04
Year 9	N leach	44	1.000	0.0	NON	100.00	WBB	1.000	YES	0.0	Poultry	0.84	0.84	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.04	0.04
Year 10	N leach	44	1.000	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.04	0.04
Year 11	N leach	44	1.000	0.0	NON	100.00	WBB	1.000	YES	0.0	Poultry	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.04	0.04
Year 12	N leach	44	1.000	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.04	0.04
Year 13	N leach	44	1.000	0.0	NON	100.00	SBA	1.000	YES	0.0	Poultry	0.65	0.65	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.04	0.04
Year 14	N leach	44	1.000	0.0	NON	100.00	WBB	1.000	YES	0.0	Poultry	0.65	0.65	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.04	0.04
Year 15	N leach	44	1.000	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.65	0.65	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.04	0.04
Year 16	N leach	44	1.000	0.0	NON	100.00	SBA	1.000	YES	0.0	Poultry	0.65	0.65	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.04	0.04

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Total/year 1
Area with crop, ha	0.68	0.06	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	1.10
Possible additional non IPCC N2O-N emissions	Value											
N residues emissions, ratio of N2O-N to N:	0.0000											
Increased soil N emissions, kg N2O-N/ha:	0.00											
Natural background emissions, kg N2O-N/ha:	1.00											
Total IPCC and non IPCC N2O	3.64											2.21 Note 51
Total anthropogenic	3.64											2.21 Note 51
Total including natural	4.39											2.96 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH

N FERTILIZER LIQUID POULTRY MANURE

WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR

Fertilizer/manure # Store Amounts

Or- ganic 1/0 Field Name 1/0 Store Name 1/0

TO PRODUCE TO PRODUCE

Year Fertilizer/manure # Store Amounts

100.0 0 100 109 97.8 43 40.0 9.6 0.0 0.0 7.6 41 30.4

Year 1 100.0 0 100 109 97.8 43 40.0 9.6 0.0 0.0 7.6 41 30.4

N2O-N in food/beverage/fuel/other

Table with columns: Year, Name, Store, Amounts, Field, 100, 0, 100, 109, 97.8, 43, 40.0, 9.6, 0.0, 0.0, 7.6, 41, 30.4, 20.9, 1.64, 3.40, 1.47, 2.10, Note 45

Year 1 2 3 4 5 6 7 8 9 10 Total Yearly Total

Area with crop, ha 0.68 0.14 0.03 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.86 1.26

Possible additional non IPCC N2O-N emissions: Value 0.0000 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.86 Total including natural

N residues emissions, ratio of N2O-N to N: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 Total anthropogenic

Increased soil N emissions, kg N2O-N/ha: 1.00 0.68 0.14 0.03 0.00 0.00 0.00 0.00 0.00 0.00 0.86 Total including natural

Natural background emissions, kg N2O-N/ha: 2.10 Note 45 2.10 Note 45 2.96 Note 45

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE Cereal Straw Crop Fuel/ Fuel/ Poultry EGGS
 AND CONTINUING WITH SEPARATED POULTRY MANURE TO PRODUCE WINTER BARLEY FOR BIOETHANOL AND N crop Food/ Fuel/ Poultry EGGS
 WINTER WHEAT FOR use & #71/ bevs other Poultry EGGS

Year	Fertilizer/manure #	Store 1/0	Amounts Store	Field 1/0	Or-ganic 1/0	Nnorm propor 1/0	Crop # Name	Use # Name	Food Fed	N crop #72	Food #8	Fuel/ #9	Manure handling # Name	Final N a-mounts	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006	Total
RATIO OF N2O-N TO N IN FIRST CROP TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED ACCORDING TO IPCC 1996 IPCC 2006 1-10 N leach 0.0605 0.0343 19.7 19.7 TOTAL 0.0732 0.0421 100.0 100.0																	

Year	N	1	100.0	100.0	0	100	109	0	1	97.8	43	40.0	9.6	0.0	0.0	7.6	42	30.4	1.78	3.48	1.35	2.00	Note 45
1	Vol/NH3	N YES	0.0	2.2 NON	100.00	WBB	1000	YES	1.000	50.2	Poultry	0.84	0.84	0.0	0.0	0.0	Poultry	7.6	1.52	2.88	1.15	1.63	Note 47
	N leach	1.022	1.000	ORG	1.00	1.000	0.591	7.6	0.591	50.2	Eggs	4	4	0.0	0.0	5.0	Sep	7.6	0.10	0.0125	0.10	0.0100	Note 48
Year	N	42	1	22.8	19.4	0	100	11	0	14.5	43	5.0	1.2	0.0	0.0	1.0	42	3.8	0.22	0.53	0.38	0.0050	Note 49
2	Vol/NH3	Poultry YES	3.4	4.8 NON	100.00	WWH	1000	YES	1.000	8.5	Poultry	0.67	0.67	0.0	0.0	0.0	Poultry	1.0	0.09	0.0125	0.09	0.0100	Note 48
	N leach	Sep	1.000	ORG	1.00	1.000	0.653	1.0	0.653	8.5	Eggs	4	4	0.0	0.0	1.0	Sep	0.0	0.21	0.0105	0.06	0.0050	Note 49
Year	N	42	1	2.9	2.4	0	100	11	0	1.8	43	0.6	0.2	0.0	0.0	0.1	42	0.5	0.03	0.07	0.02	0.04	Note 47
3	Vol/NH3	Poultry YES	0.4	0.6 NON	100.00	WWH	1000	YES	1.000	1.1	Poultry	0.67	0.67	0.0	0.0	0.0	Poultry	0.1	0.01	0.0125	0.01	0.0100	Note 48
	N leach	Sep	1.000	ORG	1.00	1.000	0.653	0.1	0.653	1.1	Eggs	4	4	0.0	0.0	0.1	Sep	0.0	0.03	0.0105	0.01	0.0050	Note 49
Year	N	42	1	0.4	0.3	0	100	11	0	0.2	43	0.1	0.0	0.0	0.0	0.0	42	0.1	0.00	0.01	0.00	0.01	Note 47
4	Vol/NH3	Poultry YES	0.1	0.1 NON	100.00	WWH	1000	YES	1.000	0.1	Poultry	0.67	0.67	0.0	0.0	0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	1.000	ORG	1.00	1.000	0.653	0.0	0.653	0.1	Eggs	4	4	0.0	0.0	0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	42	1	0.0	0.0	0	100	1	0	0.0	43	0.0	0.0	0.0	0.0	0.0	42	0.0	0.00	0.00	0.00	0.00	Note 47
5	Vol/NH3	Poultry YES	0.0	0.0 NON	100.00	SBA	1000	YES	1.000	0.0	Poultry	0.65	0.65	0.0	0.0	0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	1.000	ORG	1.00	1.000	0.653	0.0	0.653	0.0	Eggs	4	4	0.0	0.0	0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	42	1	0.0	0.0	0	100	109	0	0.0	43	0.0	0.0	0.0	0.0	0.0	42	0.0	0.00	0.0125	0.00	0.0100	Note 48
6	Vol/NH3	Poultry YES	0.0	0.0 NON	100.00	WBB	1000	YES	1.000	0.0	Poultry	0.84	0.84	0.0	0.0	0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	1.000	ORG	1.00	1.000	0.653	0.0	0.653	0.0	Eggs	4	4	0.0	0.0	0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	42	1	0.0	0.0	0	100	11	0	0.0	43	0.0	0.0	0.0	0.0	0.0	42	0.0	0.00	0.0125	0.00	0.0100	Note 48
7	Vol/NH3	Poultry YES	0.0	0.0 NON	100.00	WWH	1000	YES	1.000	0.0	Poultry	0.67	0.67	0.0	0.0	0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	1.000	ORG	1.00	1.000	0.653	0.0	0.653	0.0	Eggs	4	4	0.0	0.0	0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	42	1	0.0	0.0	0	100	11	0	0.0	43	0.0	0.0	0.0	0.0	0.0	42	0.0	0.00	0.0125	0.00	0.0100	Note 48
8	Vol/NH3	Poultry YES	0.0	0.0 NON	100.00	WWH	1000	YES	1.000	0.0	Poultry	0.67	0.67	0.0	0.0	0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	1.000	ORG	1.00	1.000	0.653	0.0	0.653	0.0	Eggs	4	4	0.0	0.0	0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	42	1	0.0	0.0	0	100	11	0	0.0	43	0.0	0.0	0.0	0.0	0.0	42	0.0	0.00	0.0125	0.00	0.0100	Note 48
9	Vol/NH3	Poultry YES	0.0	0.0 NON	100.00	WWH	1000	YES	1.000	0.0	Poultry	0.67	0.67	0.0	0.0	0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	1.000	ORG	1.00	1.000	0.653	0.0	0.653	0.0	Eggs	4	4	0.0	0.0	0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	42	1	0.0	0.0	0	100	1	0	0.0	43	0.0	0.0	0.0	0.0	0.0	42	0.0	0.00	0.0125	0.00	0.0100	Note 48
10	Vol/NH3	Poultry YES	0.0	0.0 NON	100.00	SBA	1000	YES	1.000	0.0	Poultry	0.65	0.65	0.0	0.0	0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	1.000	ORG	1.00	1.000	0.653	0.0	0.653	0.0	Eggs	4	4	0.0	0.0	0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Total/year 1
Area with crop, ha	0.68	0.10	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	1.18
Possible additional non IPCC N2O-N emissions	Value	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	Total IPCC and non IPCC N2O
N residues emissions, ratio of N2O-N to N:		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.48
Increased soil N emissions, kg N2O-N/ha:		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.48
Natural background emissions, kg N2O-N/ha:		1.00	0.68	0.10	0.01	0.00	0.00	0.00	0.00	0.00	0.80	4.28

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE CEREAL TO PRODUCE WINTER BARLEY FOR BIOETHANOL AND POULTRY EGGS
 AND CONTINUING WITH POULTRY DEEP LITTER TO PRODUCE TO PRODUCE WINTER WHEAT FOR POULTRY EGGS

Year	Fertilizer/manure #	Store Name	Amounts 1/0	Field 1/0	Or-ganic 1/0	Nnorm propor-tion, %	Crop #	Cereal benefit 1/0	Straw used 1/0	Crop leach	Use #	Fodder: Uses #21-61	Food Fed	N crop #71/	Food #72	Fuel/other #9	Manure handling #	Final N a-mounts	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006	Total	Total	Total	Total
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Total N	RATIO OF N2O-N TO N IN FIRST CROP																						
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED																				
1-10 N leach	0.0641	0.0347	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3																				
TOTAL	0.0743	0.0408	TOTAL N AMOUNTS IN KG AND % LEACHED																				

N2O-N in food/beverage/fuel/other

Year	N	Vol/NH3	N	YES	100.0	100.0	0	100	109	0	1	97.8	43	40.0	9.6	0.0	0.0	7.6	43	30.4	1.65	3.05	1.13	1.65		
1	Year N	leach	1.022	1.000	0.0	2.2	NON	100.00	WBB	1.000	YES	50.2	Poultry	0.84	0.84	0.0	0.0	0.0	0.0	12.1	0.14	0.0125	1.13	0.14	0.0100	
2	Year N	leach	1.022	1.000	18.5	15.2	0	100	11	0.591	7.6	50.2	Eggs	4	4	0.0	0.0	0.0	0.0	0.0	1.26	0.0200	0.38	1.26	0.0050	
3	Year N	leach	1.022	1.000	1.3	3.8	NON	100.00	WWH	1.000	YES	7.9	Poultry	0.67	0.67	0.0	0.0	0.0	0.0	0.8	0.08	0.0125	0.08	0.08	0.0100	
4	Year N	leach	1.022	1.000	0.2	0.3	NON	100.00	WWH	1.000	YES	0.5	Poultry	0.67	0.67	0.0	0.0	0.0	0.0	0.1	0.01	0.03	0.01	0.01	0.02	
5	Year N	leach	1.022	1.000	0.1	0.1	0	100	11	0.760	0.1	0.5	Eggs	4	4	0.0	0.0	0.0	0.0	0.0	0.01	0.0200	0.00	0.01	0.0050	
6	Year N	leach	1.022	1.000	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.0100
7	Year N	leach	1.022	1.000	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Poultry	0.65	0.65	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.00	0.0050	
8	Year N	leach	1.022	1.000	0.0	0.0	NON	100.00	WBB	1.000	YES	0.0	Poultry	0.84	0.84	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.00	0.0050	
9	Year N	leach	1.022	1.000	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.00	0.0100	
10	Year N	leach	1.022	1.000	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Poultry	0.65	0.65	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.00	0.0100	

Year Area with crop, ha

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Total/year 1
Area with crop, ha	0.68	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.74	1.09

Possible additional non IPCC N2O-N emissions
 N residues emissions, ratio of N2O-N to N: 0.0000
 Increased soil N emissions, kg N2O-N/ha: 0.00
 Natural background emissions, kg N2O-N/ha: 1.00

Total IPCC and non IPCC N2O
 3.54
 3.54
 4.28

Kind of source
 0.00 Current crops
 0.00 Total anthropogenic
 0.74 Total including natural

Note 43
 Note 43
 Note 44
 Note 44
 Note 44
 Note 45
 Note 45
 Note 46
 Note 47
 Note 48
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 Note 49
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 Note 47
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 Note 50
 Note 51
 Note 51
 Note 51
 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER BARLEY FOR BIOETHANOL AND POULTRY EGGS
 AND CONTINUING WITH MANURE FROM SCRAPING POULTRY TO PRODUCE WINTER WHEAT FOR POULTRY EGGS

Year	Fertilizer/manure #	Store Name	1/0	Field	Or-ganic	Nnorm	Crop	Straw	Use	Fodder:	N crop	Fuel/	Manure	Final	N2O-N emission	Total
		Amounts			1/0	proport	use &	benefit	#	Uses #21-61	#71/	other	handling	N a-	IPCC 1996	IPCC 2006
		Store	1/0	Field	1/0	ion, %	leach	1/0	Name	Fed	#72	#8	# Name	mounts	Each	Total

RATIO OF N2O-N TO N IN FIRST CROP		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED															
Year	N/NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3													
1-10	N leach	0.0667	0.0430	TOTAL N AMOUNTS IN KG AND % LEACHED													
TOTAL	TOTAL	0.0911	0.0568	TOTAL N AMOUNTS IN KG AND %													

N2O-N in food/beverage/fuel/other		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED														
Year	N	100.0	0	100	109	0	1	97.8	43	40.0	9.6	0.0	0.0	7.6	44	30.4
1	Vol/NH3	N	YES	2.2	NON	100.00	WBB	1.000	YES	0.84	50.2	Poultry	0.0	0.0	0.0	0.0
Year	N	leach	1.022	1.000	ORG	1.00	1.000	0.591	7.6	4	50.2	Eggs	4.0	5.0	Scrap	0.0
2	Vol/NH3	Poultry	YES	30.4	0	100	11	28.2	43	5.5	1.3	0.0	0.0	1.9	44	4.1
Year	N	leach	Scrap	0.484	1.000	ORG	1.00	1.000	1.000	0.67	20.8	Poultry	0.0	0.0	0.0	0.0
3	Vol/NH3	Poultry	YES	4.1	0	100	11	3.9	43	0.7	0.2	0.0	0.0	0.3	44	0.6
Year	N	leach	Scrap	0.484	1.000	ORG	1.00	1.000	1.000	0.67	2.8	Poultry	0.0	0.0	0.0	0.0
4	Vol/NH3	Poultry	YES	0.0	0.3	NON	100.00	WWH	1.000	YES	0.806	0.3	0.0	0.0	0.0	0.0
Year	N	leach	Scrap	0.484	1.000	ORG	1.00	1.000	1.000	0.806	0.3	0.0	0.0	0.0	0.0	0.0
5	Vol/NH3	Poultry	YES	0.6	0	100	11	0.5	43	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Year	N	leach	Scrap	0.484	1.000	ORG	1.00	1.000	1.000	0.67	0.4	Poultry	0.0	0.0	0.0	0.0
6	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.806	0.0	0.0	0.0	0.0	0.0
Year	N	leach	Scrap	0.484	1.000	ORG	1.00	1.000	1.000	0.806	0.0	0.0	0.0	0.0	0.0	0.0
7	Vol/NH3	Poultry	YES	0.1	0	100	1	0.1	43	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year	N	leach	Scrap	0.484	1.000	ORG	1.00	1.000	1.000	0.65	0.0	0.0	0.0	0.0	0.0	0.0
8	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.806	0.0	0.0	0.0	0.0	0.0
Year	N	leach	Scrap	0.484	1.000	ORG	1.00	1.000	1.000	0.806	0.0	0.0	0.0	0.0	0.0	0.0
9	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WBB	1.000	YES	1.000	YES	0.0	0.0	0.0	0.0
Year	N	leach	Scrap	0.484	1.000	ORG	1.00	1.000	1.000	0.806	0.0	0.0	0.0	0.0	0.0	0.0
10	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	1.000	YES	0.0	0.0	0.0	0.0
Year	N	leach	Scrap	0.484	1.000	ORG	1.00	1.000	1.000	0.806	0.0	0.0	0.0	0.0	0.0	0.0

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Total/year 1
Area with crop, ha	0.68	0.09	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.79	1.16
Possible additional non IPCC N2O-N emissions	Value	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.33
N residues emissions, ratio of N2O-N to N:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.70
Increased soil N emissions, kg N2O-N/ha:	1.00	0.68	0.09	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.79	5.12
Natural background emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.49
Total	0.00	0.68	0.09	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.79	11.62

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE Cereal Straw Crop Crop use & leach Name 1/0 Field 1/0 Store 1/0 Fertilizer/manure # Store 1/0 Amounts 1/0 Name 1/0 Or-ganic 1/0 Nnorm propor # Name 1/0 Crop use & leach Name 1/0 Use # Name Fed Fodder: Uses #21-61 Food #72 N crop Food/ bev #71/ #8 Fuel/ other #9 Manure Final handling N a- # Name mounts Each Total N2O-N emission N2O-N emission IPCC 1996 IPCC 2006

Year Name 1/0 Store 1/0 Amounts 1/0 Name 1/0 Or-ganic 1/0 Nnorm propor # Name 1/0 Crop use & leach Name 1/0 Use # Name Fed Fodder: Uses #21-61 Food #72 N crop Food/ bev #71/ #8 Fuel/ other #9 Manure Final handling N a- # Name mounts Each Total N2O-N emission N2O-N emission IPCC 1996 IPCC 2006

Total N Year 1-10 N leach 1-10 N leach

Year 1-10 N leach

Year	N leach	1-10 N leach	Ratio of N2O-N to N in first crop according to first year total	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED										Total/year 1			
Year 1	100.0	100.0	100.0	0	1	97.8	51	40.0	5.7	0.0	0.0	7.6	53	34.3	1.87	3.20	1.19	1.69	2.37
	2.2	NON	100.0	WBB	1000	YES	0.84	50.2	Sheep	0	0.0	0.0	53	5.1	0.07	0.125	0.07	0.09	0.09
	1.022	1.000	1.000	1.000	0.591	7.6	50.2	Milk/multi	5	5.0	Deep	5.0	53	7.0	1.26	0.0200	0.38	0.60	0.60
Year 2	33.9	33.9	33.9	0	1	33.9	51	8.1	1.2	0.0	0.0	2.3	53	7.0	0.57	1.17	0.40	0.60	0.60
	0.0	NON	100.0	WWH	1000	YES	0.67	23.4	Sheep	0	0.0	0.0	53	1.0	0.01	0.0125	0.01	0.09	0.09
	1.162	1.000	1.000	1.000	0.760	2.3	23.4	Milk/multi	5	2.3	Deep	2.3	53	1.4	0.12	0.24	0.08	0.19	0.19
Year 3	6.9	6.9	6.9	0	1	6.9	51	1.7	0.2	0.0	0.0	0.5	53	1.4	0.12	0.24	0.08	0.19	0.19
	0.0	NON	100.0	WWH	1000	YES	0.67	4.8	Sheep	0	0.0	0.0	53	0.2	0.00	0.0125	0.00	0.09	0.09
	1.162	1.000	1.000	1.000	0.760	0.5	4.8	Milk/multi	5	0.5	Deep	0.5	53	0.2	0.00	0.0125	0.00	0.09	0.09
Year 4	1.4	1.4	1.4	0	1	1.4	51	0.3	0.0	0.0	0.0	0.1	53	0.3	0.02	0.05	0.02	0.09	0.09
	0.0	NON	100.0	WWH	1000	YES	0.67	1.0	Sheep	0	0.0	0.0	53	0.0	0.00	0.0125	0.00	0.09	0.09
	1.162	1.000	1.000	1.000	0.760	0.1	1.0	Milk/multi	5	0.1	Deep	0.1	53	0.0	0.00	0.0125	0.00	0.09	0.09
Year 5	0.3	0.3	0.3	0	1	0.3	51	0.1	0.0	0.0	0.0	0.0	53	0.1	0.00	0.01	0.00	0.09	0.09
	0.0	NON	100.0	SBA	1000	YES	0.65	0.2	Sheep	0	0.0	0.0	53	0.0	0.00	0.0125	0.00	0.09	0.09
	1.162	1.000	1.000	1.000	0.760	0.0	0.2	Milk/multi	5	0.0	0.0	0.0	53	0.0	0.00	0.0125	0.00	0.09	0.09
Year 6	0.1	0.1	0.1	0	1	0.1	51	0.0	0.0	0.0	0.0	0.0	53	0.0	0.00	0.00	0.00	0.09	0.09
	0.0	NON	100.0	WBB	1000	YES	0.84	0.0	Sheep	0	0.0	0.0	53	0.0	0.00	0.0125	0.00	0.09	0.09
	1.162	1.000	1.000	1.000	0.760	0.0	0.0	Milk/multi	5	0.0	0.0	0.0	53	0.0	0.00	0.0125	0.00	0.09	0.09
Year 7	0.0	0.0	0.0	0	1	0.0	51	0.0	0.0	0.0	0.0	0.0	53	0.0	0.00	0.00	0.00	0.09	0.09
	0.0	NON	100.0	WWH	1000	YES	0.67	0.0	Sheep	0	0.0	0.0	53	0.0	0.00	0.0125	0.00	0.09	0.09
	1.162	1.000	1.000	1.000	0.760	0.0	0.0	Milk/multi	5	0.0	0.0	0.0	53	0.0	0.00	0.0125	0.00	0.09	0.09
Year 8	0.0	0.0	0.0	0	1	0.0	51	0.0	0.0	0.0	0.0	0.0	53	0.0	0.00	0.00	0.00	0.09	0.09
	0.0	NON	100.0	WWH	1000	YES	0.67	0.0	Sheep	0	0.0	0.0	53	0.0	0.00	0.0125	0.00	0.09	0.09
	1.162	1.000	1.000	1.000	0.760	0.0	0.0	Milk/multi	5	0.0	0.0	0.0	53	0.0	0.00	0.0125	0.00	0.09	0.09
Year 9	0.0	0.0	0.0	0	1	0.0	51	0.0	0.0	0.0	0.0	0.0	53	0.0	0.00	0.00	0.00	0.09	0.09
	0.0	NON	100.0	WWH	1000	YES	0.67	0.0	Sheep	0	0.0	0.0	53	0.0	0.00	0.0125	0.00	0.09	0.09
	1.162	1.000	1.000	1.000	0.760	0.0	0.0	Milk/multi	5	0.0	0.0	0.0	53	0.0	0.00	0.0125	0.00	0.09	0.09
Year 10	0.0	0.0	0.0	0	1	0.0	51	0.0	0.0	0.0	0.0	0.0	53	0.0	0.00	0.00	0.00	0.09	0.09
	0.0	NON	100.0	SBA	1000	YES	0.65	0.0	Sheep	0	0.0	0.0	53	0.0	0.00	0.0125	0.00	0.09	0.09
	1.162	1.000	1.000	1.000	0.760	0.0	0.0	Milk/multi	5	0.0	0.0	0.0	53	0.0	0.00	0.0125	0.00	0.09	0.09

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE Cereal Straw Crop N crop Food/ Fuel/ Manure Final N2O-N emission
 AND CONTINUING WITH GOAT DEEP LITTER TO PRODUCE use & leach use # Uses #21-61 #71/ bev other handling N a- IPCC 2006
 GOAT MILK/MEAT GOAT MILK/MEAT

Year	Fertilizer/manure #	Store Name	Amounts 1/0	Field 1/0	Or-ganic 1/0	Nnorm propor-tion, %	Crop #	Cereal benefit 1/0	Straw used 1/0	use & leach 1/0	Use #	Food Fed	Food #72	bev #71	other #9	Fuel/ #8	Fuel/ #9	Manure #	Final N a-	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006	Total	
Total N																							
Year 1-10																							
RATIO OF N2O-N TO N IN FIRST CROP TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED ACCORDING TO IPCC 1996 IPCC 2006 FIRST YEAR 0.0680 0.0346 TOTAL 0.0903 0.0474 TOTAL N AMOUNTS IN KG AND % LEACHED TOTAL N AMOUNTS IN KG AND %																							

Year	N	Voi/leach	NH3	N	100.0	0	100	109	0	1	97.8	61	40.0	3.8	0.0	0.0	7.6	63	36.2	13.8	2.35	4.30	1.50	2.25
Year 1	N	1	YES	0.0	2.2	NON	100.0	WBB	1.000	YES	50.2	Goat	0.84				0.0	Goat	5.4	13.8	1.90	3.23	1.19	1.65
Year 2	N	63	Goat	35.7	30.4	0	100	11	0.591	7.6	50.2	Milk/meal	6	5.5	0.5	0.0	1.6	63	4.9	23.5	0.08	0.125	0.08	0.100
Year 3	N	63	Goat	5.4	7.6	NON	100.0	WWH	1.000	YES	15.7	Goat	0.67	0.7	0.1	0.0	0.0	1.5	0.0	22.2	1.26	0.200	0.38	0.0050
Year 4	N	63	Goat	0.7	4.1	0	100	11	0.760	0.2	2.2	Goat	0.67	0.1	0.0	0.0	0.2	63	0.7	64.7	0.39	0.92	0.27	0.52
Year 5	N	63	Goat	1.162	1.0	NON	100.0	WWH	1.000	YES	0.3	Goat	0.67	0.1	0.0	0.0	0.0	1.5	0.0	100.0	1.71	0.200	0.14	0.0100
Year 6	N	63	Goat	0.1	0.6	0	100	11	0.760	0.1	0.4	Milk/meal	6	0.0	0.0	0.0	0.0	63	0.0	105.8	0.01	0.02	0.02	0.0050
Year 7	N	63	Goat	1.162	0.1	NON	100.0	WWH	1.000	YES	0.3	Milk/meal	6	0.0	0.0	0.0	0.0	63	0.0	0.0	0.00	0.00	0.00	0.0050
Year 8	N	63	Goat	0.0	0.0	NON	100.0	SBA	1.000	YES	0.0	Goat	0.65	0.0	0.0	0.0	0.0	63	0.0	0.0	0.00	0.00	0.00	0.0050
Year 9	N	63	Goat	1.162	0.0	NON	100.0	WWH	1.000	YES	0.0	Milk/meal	6	0.0	0.0	0.0	0.0	63	0.0	0.0	0.00	0.00	0.00	0.0050
Year 10	N	63	Goat	0.0	0.0	NON	100.0	SBA	1.000	YES	0.0	Milk/meal	6	0.0	0.0	0.0	0.0	63	0.0	0.0	0.00	0.00	0.00	0.0050
Year	N	63	Goat	1.162	0.0	NON	100.0	WWH	1.000	YES	0.0	Milk/meal	6	0.0	0.0	0.0	0.0	63	0.0	0.0	0.00	0.00	0.00	0.0050

Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 Year 9 Year 10 Total Total/year 1

Area with crop, ha 0.68 0.11 0.02 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.81 1.19 Note 50

Possible additional non IPCC N2O-N emissions Value
 N residues emissions, ratio of N2O-N to N: 0.0000
 Increased soil N emissions, kg N2O-N/ha: 0.00
 Natural background emissions, kg N2O-N/ha: 1.00
 Total IPCC and non IPCC N2O: 4.30
 Total anthropogenic: 4.30
 Total including natural: 5.11
 Note 51: 2.25
 Note 51: 2.25
 Note 51: 3.07

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE CEREAL STRAW CROP USE FODDER: N CROPS FOOD/FUEL/OTHER/REMOVED HIGH N CROP
AND CONTINUING WITH GREEN MANURE HIGH N TO PRODUCE WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR CATTLE DAIRY

Table with 10 columns: Year, Fertilizer/manure #, Store, Amounts, Field, 1/0, Or-ganic, Nnorm, Crop, Straw used, Crop use & leach, Name, Use #, Name, Fed, Food, N crop #71, Food #72, bev #8, Fuel/other #9, Manure handling #, Final N a-mounts, N2O-N emission, IPCC 1996, IPCC 2006, Total, N2O-N emission, Each, Total, N2O-N emission, Each, Total.

Summary table with 4 columns: Year, N, NH3, N leach, N2O-N in food/beverage/fuel/other. Includes sub-totals for Year 1-10 and overall totals.

N2O-N in food/beverage/fuel/other

Main data table with 10 rows (Year 1-10) and 40 columns (Year 1-10, Total/year 10, Total/year 1). Includes various emission factors and crop types.

Area with crop, ha

Table with 2 columns: Area with crop, ha (1.43) and Total IPCC and non IPCC N2O (3.73).

Possible additional non IPCC N2O-N emissions: Value 0.0000, N residues emissions, ratio of N2O-N to N: 0.00, Increased soil N emissions, kg N2O-N/ha: 1.00, Natural background emissions, kg N2O-N/ha: 0.68.

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE Cereal Straw Crop use & Fuel/ Manure Final N2O-N emission
AND CONTINUING WITH GREEN MANURE LOW N TO PRODUCE benefit used leach Name Fed Uses #21-61 #71/ be v other handling N a- IPCC 2006
Fertilizer/manure Or- Nnorm Crop use Fodder: N crop Food/ Fuel/ other # Name mounts Each Total

Year Fertilizer/manure # Store Amounts Field 1/0 ganic 1/0 Nnorm # Crop use & leach Name Fed Uses #21-61 #71/ be v other handling N a- IPCC 2006
Name 1/0 Store Amounts Field 1/0 ganic 1/0 Nnorm # Crop use & leach Name Fed Uses #21-61 #71/ be v other handling N a- IPCC 2006
Name 1/0 Store Amounts Field 1/0 ganic 1/0 Nnorm # Crop use & leach Name Fed Uses #21-61 #71/ be v other handling N a- IPCC 2006

Total N	RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED									
Year N NH3	100.0	0	100	109	0	1	97.8	72	0.0	0.0	40.0	0.0	7.6	72	40.0	11.8				
1-10 N leach	1.022	1.000	1.000	1.000	0.591	7.6	50.2	N crop	0.84	0.00	0.00	0.00	0.00	0.00	0.00	14.2				
TOTAL	0.0787	0.0539	0.0303	0.0449	0.0787	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74.0				
																100.0				

Year	N	Vol/NH3	N	Yes	100.0	0	100	109	0	1	97.8	72	0.0	0.0	40.0	0.0	7.6	72	40.0	11.8	1.75	3.74	1.44	2.14	Note 45
1	Vol/NH3	N	Yes	100.0	0	100	109	0	1	97.8	N crop	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.0125	1.04	1.44	Note 47
	N leach	1.022	1.000	1.000	0.591	7.6	50.2	low N	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.0125	1.04	1.44	Note 48
Year	N	72	1	40.0	0	100	11	0	1	30.0	0	21	6.4	1.5	0.0	0.0	2.1	21	4.9	0.35	0.40	1.05	0.35	0.61	Note 49
2	Vol/NH3	Green	Yes	0.0	10.0	NON	100.00	WWH	1.000	YES	21.5	Cattle	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.125	0.10	0.100	Note 48
	N leach	Low	0.533	1.000	4.5	0	100	11	0.787	2.1	21.5	Dairy	2	0.3	0.0	0.0	2.0	Liquid	0.0	0.54	0.0010	0.16	0.0050	Note 49	
Year	N	21	1	4.6	0	100	11	0	1	3.4	0	21	1.3	0.3	0.0	0.0	0.2	21	1.0	0.04	0.05	0.11	0.04	0.07	Note 47
3	Vol/NH3	Cattle	Yes	0.1	1.1	NON	100.00	WWH	1.000	YES	1.9	Cattle	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.0125	0.01	0.0100	Note 48
	N leach	Liquid	0.933	1.016	0.9	0	100	11	0.627	0.2	1.9	Dairy	2	0.1	0.0	0.0	0.2	Liquid	0.0	0.05	0.0010	0.01	0.0050	Note 49	
Year	N	21	1	0.9	0.2	NON	100.00	WWH	1.000	YES	0.4	Cattle	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.01	0.01	Note 47
4	Vol/NH3	Cattle	Yes	0.0	0.2	NON	100.00	WWH	1.000	YES	0.4	Cattle	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.933	1.016	0.2	0	100	1	0.627	0.0	0.4	Dairy	2	0.0	0.0	0.0	0.0	Liquid	0.0	0.01	0.0010	0.00	0.0050	Note 49	
Year	N	21	1	0.2	0.2	0	100	1	0	1	0.1	21	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00	0.00	Note 47
5	Vol/NH3	Cattle	Yes	0.0	0.0	NON	100.00	SBA	1.000	YES	0.1	Cattle	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.933	1.016	0.0	0	100	109	0.627	0.0	0.1	Dairy	2	0.0	0.0	0.0	0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49	
Year	N	21	1	0.0	0.0	0	100	109	0	1	0.0	72	0.0	0.0	0.0	0.0	0.0	72	0.0	0.00	0.00	0.00	0.00	0.00	Note 47
6	Vol/NH3	Cattle	Yes	0.0	0.0	NON	100.00	WBB	1.000	YES	0.0	N crop	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.933	1.016	0.0	0	100	11	0.627	0.0	0.0	low N	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	0.00	0.0000	Note 49
Year	N	72	1	0.0	0.0	0	100	11	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00	0.00	Note 47
7	Vol/NH3	Green	Yes	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Low	0.533	1.000	0.0	0	100	11	0.787	0.0	0.0	Dairy	2	0.0	0.0	0.0	0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49	
Year	N	21	1	0.0	0.0	0	100	11	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00	0.00	Note 47
8	Vol/NH3	Cattle	Yes	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.933	1.016	0.0	0	100	1000	0.627	0.0	0.0	Dairy	2	0.0	0.0	0.0	0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49	
Year	N	21	1	0.0	0.0	0	100	11	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00	0.00	Note 47
9	Vol/NH3	Cattle	Yes	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.933	1.016	0.0	0	100	1000	0.627	0.0	0.0	Dairy	2	0.0	0.0	0.0	0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49	
Year	N	21	1	0.0	0.0	0	100	1	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00	0.00	Note 47
10	Vol/NH3	Cattle	Yes	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Cattle	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.933	1.016	0.0	0	100	1000	0.627	0.0	0.0	Dairy	2	0.0	0.0	0.0	0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49	

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Total/year 1	Note 50
Area with crop, ha	0.68	0.13	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.85	1.24	Note 50
Possible additional non IPCC N2O-N emissions	Value	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total IPCC and non IPCC N2O
N residues emissions, ratio of N2O-N to N:		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.74	Note 51
Increased soil N emissions, kg N2O-N/ha:		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.74	Note 51
Natural background emissions, kg N2O-N/ha:		1.00	0.68	0.13	0.03	0.01	0.00	0.00	0.00	0.00	0.85	4.59	Note 51

N CHAIN STARTING WITH N FERTILIZER AND CONTINUING WITH NO MANURE TO PRODUCE TO PRODUCE WINTER BARLEY FOR BIOETHANOL AND NOTHING FOR FOOD FOOD

Year	Fertilizer/manure #	Store 1/0	Amounts Store	Field 1/0	Or-ganic 1/0	Nnorm propor-tion, %	Crop #	Straw used 1/0	Use #	Fodder: Uses #21-61 Fed	N crop #71/ #72	Fuel/ bev #8	Fuel/ other #9	Manure handling # Name	Final N a-mounts	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006	Total	
Total N	1	1	100.0	100.0	2.2 NON	100.00	109	0	1	97.8	8	0.0	40.0	7.6	0	47.6	1.29	2.56	1.04
Year 1-10 N leach	YES	1.022	1.000	0.0	ORG	1.00	1.000	1.000	YES	50.2 Food/ 50.2 beverage	8	0.84	0.0	0.0	NONE	2.2	0.02	0.02	0.02
Year 2	None	YES	0.0	0.0	0.0 NON	100.00	NO	0	1	0.0	8	0.0	0.0	0.0	0	47.6	0.00	0.00	0.38
Year 3	None	YES	1.000	1.000	ORG	1.00	1.000	0	1	0.0	8	0.0	0.0	0.0	0	47.6	0.00	0.00	0.38
Year 4	None	YES	0.0	0.0	0.0 NON	100.00	NO	1.000	YES	0.0 Food/ 0.0 beverage	8	0.67	0.0	0.0	NONE	50.2	1.26	1.26	0.38
Year 5	None	YES	1.000	1.000	ORG	1.00	1.000	0	1	0.0	8	0.0	0.0	0.0	0	100.0	0.00	0.00	0.38
Year 6	None	YES	0.0	0.0	0.0 NON	100.00	NO	1.000	YES	0.0 Food/ 0.0 beverage	8	0.67	0.0	0.0	NONE	100.0	0.00	0.00	0.38
Year 7	None	YES	1.000	1.000	ORG	1.00	1.000	0	1	0.0	8	0.0	0.0	0.0	0	100.0	0.00	0.00	0.38
Year 8	None	YES	0.0	0.0	0.0 NON	100.00	NO	1.000	YES	0.0 Food/ 0.0 beverage	8	0.67	0.0	0.0	NONE	100.0	0.00	0.00	0.38
Year 9	None	YES	1.000	1.000	ORG	1.00	1.000	0	1	0.0	8	0.0	0.0	0.0	0	100.0	0.00	0.00	0.38
Year 10	None	YES	0.0	0.0	0.0 NON	100.00	NO	1.000	YES	0.0 Food/ 0.0 beverage	8	0.65	0.0	0.0	NONE	100.0	0.00	0.00	0.38
N leach	1.000	1.000	1.000	1.000	ORG	1.00	1.000	0.600	0.0	0.0 beverage	8	0.65	0.0	0.0	NONE	100.0	0.00	0.00	0.38

N2O-N in food/beverage/fuel/other

Year	Vol/NH3	N	100.0	0	100	109	0	1	97.8	8	0.0	0.0	40.0	7.6	0	47.6	1.29	2.56	1.04
Year 1	Vol/NH3	N	100.0	0	100	109	0	1	97.8	8	0.0	0.0	40.0	7.6	0	47.6	1.29	2.56	1.04
Year 2	Vol/NH3	None	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year 3	Vol/NH3	None	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year 4	Vol/NH3	None	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year 5	Vol/NH3	None	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year 6	Vol/NH3	None	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year 7	Vol/NH3	None	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year 8	Vol/NH3	None	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year 9	Vol/NH3	None	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year 10	Vol/NH3	None	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
N leach	1.000	1.000	1.000	1.000	ORG	1.00	1.000	0.600	0.0	0.0 beverage	8	0.65	0.0	0.0	NONE	100.0	0.00	0.00	0.38

Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 Year 9 Year 10 Total Total/year 1

Area with crop, ha 0.68 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.68 1.00

Possible additional non IPCC N2O-N emissions Value 0.0000
 N residues emissions, ratio of N2O-N to N: 0.00
 Increased soil N emissions, kg N2O-N/ha: 1.00
 Natural background emissions, kg N2O-N/ha: 0.68
 Total IPCC and non IPCC N2O 2.56
 Total anthropogenic 2.56
 Total including natural 3.24
 Note 51 1.44 Note 51 1.44 Note 51 2.12 Note 51

N CHAIN STARTING WITH N FERTILIZER AND CONTINUING WITH NO MANURE TO PRODUCE TO PRODUCE WINTER BARLEY FOR BIOETHANOL AND NOTHING FOR FUEL FUEL

Year Fertilizer/manure # Store Amounts Store 1/0 Field Name 1/0 Or-ganic 1/0 Nnorm propor tion, % Name # Crop use & leach Straw used 1/0 Cereal benefit 1/0 N crop #71/ #72 Food #72 N crop Food/ bev #8 Fuel/ other #9 Fuel/ Manure handling N a- # Name Final N a- Total N2O-N emission IPCC 1996 N2O-N emission IPCC 2006 Total N2O-N emission Each Total

Table with 10 columns: Year, N, NH3, leach, etc. Rows include ratios of N2O-N to N in first crop and total N amounts in kg and % ending as food/fuel/other/removed.

Main data table with 10 columns for years (Year 1-10) and 10 rows for different N2O-N sources (Year 1-10). Includes columns for fuel, manure, and various crop inputs.

Summary table with columns: Year, Area with crop, ha, Possible additional non IPCC N2O-N emissions, N residues emissions, ratio of N2O-N to N, Increased soil N emissions, kg N2O-N/ha, Natural background emissions, kg N2O-N/ha, Total/year 10 Total, Total/year 1, Total IPCC and non IPCC N2O, Kind of source, Total anthropogenic, Total including natural.

N CHAIN STARTING WITH N FERTILIZER AND CONTINUING WITH NO MANURE TO PRODUCE Cereal benefit 1/0 Straw used 1/0 Crop use & leach Crop use & leach Fodder: Uses #21-61 Fed Name Fed Food #72 Food #71/ bev #72 N crop Food/ Fuel/ other #9 Manure handling N a- # Name mounts Final N a- Total N2O-N emission IPCC 1996 N2O-N emission IPCC 2006 WASTE DUMPED ELSEWHERE WITHOUT LEACHING Note 43 WASTE, DUMPED ELSEWHERE Note 43

Year Fertilizer/manure # Store 1/0 Store Amounts Field 1/0 Organic 1/0 Nnorm propor # Name 1/0 Crop benefit 1/0 Straw used 1/0 Crop use & leach Crop use & leach Fodder: Uses #21-61 Fed Name Fed Food #72 Food #71/ bev #72 N crop Food/ Fuel/ other #9 Manure handling N a- # Name mounts Final N a- Total N2O-N emission IPCC 1996 N2O-N emission IPCC 2006 WASTE DUMPED ELSEWHERE WITHOUT LEACHING Note 44 WASTE, DUMPED ELSEWHERE Note 44

Total N	Year 1-10	RATIO OF N2O-N TO N IN FIRST CROP		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED										TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3									
		IPCC 1996	IPCC 2006	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Year 1	Year 2	Year 3						
		0.0539	0.0303	100.0	0	100	109	1000	YES	1	97.8	-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.29	2.56	1.04	1.44
TOTAL				0.0539	0.0303						50.2	Waste	0.84							0.02	0.02	0.38	1.44

N2O-N in food/beverage/fuel/other

Year	N1	N2	N3	N4	N5	N6	N7	N8	N9	N10	Total	N2O-N	Total
1	1	1	1	1	1	1	1	1	1	1	109	0.02	2.56
2	1	1	1	1	1	1	1	1	1	1	109	0.02	2.56
3	1	1	1	1	1	1	1	1	1	1	109	0.02	2.56
4	1	1	1	1	1	1	1	1	1	1	109	0.02	2.56
5	1	1	1	1	1	1	1	1	1	1	109	0.02	2.56
6	1	1	1	1	1	1	1	1	1	1	109	0.02	2.56
7	1	1	1	1	1	1	1	1	1	1	109	0.02	2.56
8	1	1	1	1	1	1	1	1	1	1	109	0.02	2.56
9	1	1	1	1	1	1	1	1	1	1	109	0.02	2.56
10	1	1	1	1	1	1	1	1	1	1	109	0.02	2.56
Total	10	10	10	10	10	10	10	10	10	10	1090	0.20	25.6

Year 1 100.0 0 100 109 1000 YES 1 97.8 -1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.02 2.56 1.04 1.44

Year 2 100.0 0 100 109 1000 YES 1 97.8 -1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.02 2.56 1.04 1.44

Year 3 100.0 0 100 109 1000 YES 1 97.8 -1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.02 2.56 1.04 1.44

Year 4 100.0 0 100 109 1000 YES 1 97.8 -1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.02 2.56 1.04 1.44

Year 5 100.0 0 100 109 1000 YES 1 97.8 -1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.02 2.56 1.04 1.44

Year 6 100.0 0 100 109 1000 YES 1 97.8 -1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.02 2.56 1.04 1.44

Year 7 100.0 0 100 109 1000 YES 1 97.8 -1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.02 2.56 1.04 1.44

Year 8 100.0 0 100 109 1000 YES 1 97.8 -1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.02 2.56 1.04 1.44

Year 9 100.0 0 100 109 1000 YES 1 97.8 -1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.02 2.56 1.04 1.44

Year 10 100.0 0 100 109 1000 YES 1 97.8 -1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.02 2.56 1.04 1.44

Area with crop, ha

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
1	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68
Total	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68

Possible additional non IPCC N2O-N emissions

Value	Total
0.0000	0.00
0.00	0.00
1.00	0.68

N residues emissions, ratio of N2O-N to N:

Value	Total
0.0000	0.00
0.00	0.00
1.00	0.68

Increased soil N emissions, kg N2O-N/ha:

Value	Total
0.0000	0.00
0.00	0.00
1.00	0.68

Natural background emissions, kg N2O-N/ha:

Value	Total
0.0000	0.00
0.00	0.00
1.00	0.68

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Total/year 1
	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68	1.00

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Total/year 1
	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68	1.00

Kind of source: Current crops, Total anthropogenic, Total including natural

SUMMARY CATTLE DAIRY

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER LIQUID CATTLE MANURE	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	CATTLE DAIRY CATTLE DAIRY	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		23.13 23.01	1.46
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	13.74 13.67	0.14
1-10 N leach	0.0549	0.0335	TOTAL N AMOUNTS IN KG AND % LEACHED	63.65 63.32	0.48
TOTAL	0.0708	0.0437	TOTAL N AMOUNTS IN KG AND %	100.52 100.00	Note 45 Note 45
N2O-N/N in food/beverage/fuel/other					0.0898 Note 46
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.87 1.27			Note 50
		0.87		4.23	2.94 Note 51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER SEPARATED CATTLE MANURE	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	CATTLE DAIRY CATTLE DAIRY	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		22.77 22.66	1.45
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	14.27 14.19	0.14
1-10 N leach	0.0601	0.0334	TOTAL N AMOUNTS IN KG AND % LEACHED	63.48 63.15	0.48
TOTAL	0.0769	0.0435	TOTAL N AMOUNTS IN KG AND %	100.52 100.00	Note 45 Note 45
N2O-N/N in food/beverage/fuel/other					0.0908 Note 46
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.84 1.24			Note 50
		0.84		4.50	2.91 Note 51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER CATTLE DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	CATTLE DAIRY CATTLE DAIRY	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		21.62 20.65	1.38
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	20.39 19.47	0.20
1-10 N leach	0.0654	0.0334	TOTAL N AMOUNTS IN KG AND % LEACHED	62.69 59.88	0.47
TOTAL	0.0818	0.0433	TOTAL N AMOUNTS IN KG AND %	104.71 100.00	Note 45 Note 45
N2O-N/N in food/beverage/fuel/other					0.0952 Note 46
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.77 1.13			Note 50
		0.77		4.66	2.83 Note 51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM GRAZING CATTLE	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	CATTLE DAIRY CATTLE DAIRY	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		22.84 22.84	2.02
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	4.49 4.49	0.04
1-10 N leach	0.0658	0.0421	TOTAL N AMOUNTS IN KG AND % LEACHED	72.67 72.67	0.55
TOTAL	0.0885	0.0550	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	Note 45 Note 45
N2O-N/N in food/beverage/fuel/other					0.1145 Note 46
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.78 1.14			Note 50
		0.78		4.99	3.39 Note 51

SUMMARY CATTLE BEEF

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER LIQUID CATTLE MANURE	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	CATTLE BEEF CATTLE BEEF	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		21.69 21.58	1.49
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	14.42 14.34	0.14
1-10 N leach	0.0550	0.0336	TOTAL N AMOUNTS IN KG AND % LEACHED	64.44 64.09	0.48
TOTAL	0.0718	0.0445	TOTAL N AMOUNTS IN KG AND %	100.55 100.00	

N2O-N/N in food/beverage/fuel/other		0.1574	0.0975	Note 46
Area with crop, ha	Total/year 1			
Natural background emissions, kg N2O-N/ha:	0.88	1.29		Note 50
	0.88		4.29	Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER SEPARATED CATTLE MANURE	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	CATTLE BEEF CATTLE BEEF	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		21.34 21.23	1.47
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	14.96 14.88	0.15
1-10 N leach	0.0604	0.0335	TOTAL N AMOUNTS IN KG AND % LEACHED	64.24 63.89	0.48
TOTAL	0.0783	0.0442	TOTAL N AMOUNTS IN KG AND %	100.55 100.00	

N2O-N/N in food/beverage/fuel/other		0.1744	0.0986	Note 46
Area with crop, ha	Total/year 1			
Natural background emissions, kg N2O-N/ha:	0.85	1.25		Note 50
	0.77		4.58	Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER CATTLE DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	CATTLE BEEF CATTLE BEEF	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		20.22 19.27	1.40
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	21.37 20.36	0.21
1-10 N leach	0.0660	0.0336	TOTAL N AMOUNTS IN KG AND % LEACHED	63.37 60.37	0.48
TOTAL	0.0833	0.0440	TOTAL N AMOUNTS IN KG AND %	104.96 100.00	

N2O-N/N in food/beverage/fuel/other		0.1959	0.1034	Note 46
Area with crop, ha	Total/year 1			
Natural background emissions, kg N2O-N/ha:	0.78	1.14		Note 50
	0.78		4.74	Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM GRAZING CATTLE	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	CATTLE BEEF CATTLE BEEF	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		21.47 21.47	2.08
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	4.62 4.62	0.05
1-10 N leach	0.0663	0.0427	TOTAL N AMOUNTS IN KG AND % LEACHED	73.92 73.92	0.55
TOTAL	0.0904	0.0563	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	

N2O-N/N in food/beverage/fuel/other		0.2002	0.1248	Note 46
Area with crop, ha	Total/year 1			
Natural background emissions, kg N2O-N/ha:	0.78	1.15		Note 50
	0.78		5.08	Note 51

SUMMARY PIG PORK

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER LIQUID PIG MANURE	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	PIG PORK PIG PORK	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		28.32	1.34
Year N NH3	IPCC 1996	IPCC 2006		1.54	3.14
1-10 N leach	0.0550	0.0331	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	12.35	0.12
TOTAL	0.0661	0.0402	TOTAL N AMOUNTS IN KG AND % LEACHED	59.33	0.44
			TOTAL N AMOUNTS IN KG AND %	100.00	1.48
N2O-N/N in food/beverage/fuel/other				100.00	100.00
Area with crop, ha					
Natural background emissions, kg N2O-N/ha:				Total/year 1	0.0675
				0.82	Note 46
				1.21	Note 50
				0.82	2.74
					Note 51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER SEPARATED PIG MANURE	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	PIG PORK PIG PORK	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		27.01	1.29
Year N NH3	IPCC 1996	IPCC 2006		15.77	0.16
1-10 N leach	0.0590	0.0332	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	15.69	0.16
TOTAL	0.0690	0.0395	TOTAL N AMOUNTS IN KG AND % LEACHED	57.72	0.43
			TOTAL N AMOUNTS IN KG AND %	100.51	1.44
N2O-N/N in food/beverage/fuel/other				100.00	100.00
Area with crop, ha					
Natural background emissions, kg N2O-N/ha:				Total/year 1	0.0695
				0.77	Note 46
				1.14	Note 50
				0.77	2.65
					Note 51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER PIG DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	PIG PORK PIG PORK	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		26.33	1.24
Year N NH3	IPCC 1996	IPCC 2006		20.23	0.20
1-10 N leach	0.0625	0.0333	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	19.75	0.20
TOTAL	0.0713	0.0391	TOTAL N AMOUNTS IN KG AND % LEACHED	55.85	0.42
			TOTAL N AMOUNTS IN KG AND %	102.40	1.40
N2O-N/N in food/beverage/fuel/other				100.00	100.00
Area with crop, ha					
Natural background emissions, kg N2O-N/ha:				Total/year 1	0.0707
				0.75	Note 46
				1.10	Note 50
				0.75	2.61
					Note 51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM ROOTING PIGS	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	PIG PORK PIG PORK	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		29.02	1.87
Year N NH3	IPCC 1996	IPCC 2006		4.12	0.04
1-10 N leach	0.0637	0.0401	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	4.12	0.04
TOTAL	0.0817	0.0507	TOTAL N AMOUNTS IN KG AND % LEACHED	66.86	0.50
			TOTAL N AMOUNTS IN KG AND %	100.00	100.00
N2O-N/N in food/beverage/fuel/other				100.00	100.00
Area with crop, ha					
Natural background emissions, kg N2O-N/ha:				Total/year 1	0.0830
				0.80	Note 46
				1.18	Note 50
				0.80	3.21
					Note 51

SUMMARY POULTRY MEAT

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER LIQUID POULTRY MANURE	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	POULTRY MEAT POULTRY MEAT	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		31.55 31.55	1.30
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	9.67 9.67	0.10
1-10 N leach	0.0547	0.0325	TOTAL N AMOUNTS IN KG AND % LEACHED	58.78 58.78	0.44
TOTAL	0.0645	0.0386	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	Note 45 Note 45

N2O-N/N in food/beverage/fuel/other 0.0972 0.0582 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha:
 Total/year 1
 0.79 1.15
 0.79 2.62 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER SEPARATED POULTRY MANURE	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	POULTRY MEAT POULTRY MEAT	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		30.46 30.46	1.23
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	13.33 13.33	0.13
1-10 N leach	0.0582	0.0329	TOTAL N AMOUNTS IN KG AND % LEACHED	56.20 56.20	0.42
TOTAL	0.0658	0.0376	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	Note 45 Note 45

N2O-N/N in food/beverage/fuel/other 0.1027 0.0586 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha:
 Total/year 1
 0.75 1.11
 0.75 2.54 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER POULTRY DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	POULTRY MEAT POULTRY MEAT	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		29.43 29.39	1.19
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	15.15 15.13	0.15
1-10 N leach	0.0605	0.0332	TOTAL N AMOUNTS IN KG AND % LEACHED	55.57 55.48	0.42
TOTAL	0.0668	0.0369	TOTAL N AMOUNTS IN KG AND %	100.16 100.00	Note 45 Note 45

N2O-N/N in food/beverage/fuel/other 0.1079 0.0596 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha:
 Total/year 1
 0.72 1.06
 0.72 2.47 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM SCRAPING POULTRY	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	POULTRY MEAT POULTRY MEAT	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		31.31 31.31	1.69
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	3.70 3.70	0.04
1-10 N leach	0.0621	0.0385	TOTAL N AMOUNTS IN KG AND % LEACHED	64.99 64.99	0.49
TOTAL	0.0766	0.0465	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	Note 45 Note 45

N2O-N/N in food/beverage/fuel/other 0.1164 0.0707 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha:
 Total/year 1
 0.75 1.10
 0.75 2.96 Note 51

SUMMARY POULTRY EGGS

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER LIQUID POULTRY MANURE	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	POULTRY EGGS POULTRY EGGS	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		20.90 20.90	1.47
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	14.64 14.64	0.15
1-10 N leach	0.0551	0.0338	TOTAL N AMOUNTS IN KG AND % LEACHED	64.45 64.45	0.48
TOTAL	0.0715	0.0442	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	Note 45 Note 45
N2O-N/N in food/beverage/fuel/other				0.1627	0.1005 Note 46
Area with crop, ha		Total/year 1		0.86 1.26	Note 50
Natural background emissions, kg N2O-N/ha:		0.86		0.86	2.96 Note 51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER SEPARATED POULTRY MANURE	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	POULTRY EGGS POULTRY EGGS	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		19.73 19.73	1.35
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	20.32 20.32	0.20
1-10 N leach	0.0605	0.0343	TOTAL N AMOUNTS IN KG AND % LEACHED	59.95 59.95	0.45
TOTAL	0.0732	0.0421	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	Note 45 Note 45
N2O-N/N in food/beverage/fuel/other				0.1765	0.1016 Note 46
Area with crop, ha		Total/year 1		0.80 1.18	Note 50
Natural background emissions, kg N2O-N/ha:		0.80		0.80	2.80 Note 51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER POULTRY DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	POULTRY EGGS POULTRY EGGS	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		18.75 18.70	1.27
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	22.79 22.73	0.23
1-10 N leach	0.0641	0.0347	TOTAL N AMOUNTS IN KG AND % LEACHED	58.71 58.56	0.44
TOTAL	0.0743	0.0408	TOTAL N AMOUNTS IN KG AND %	100.25 100.00	Note 45 Note 45
N2O-N/N in food/beverage/fuel/other				0.1886	0.1035 Note 46
Area with crop, ha		Total/year 1		0.74 1.09	Note 50
Natural background emissions, kg N2O-N/ha:		0.74		0.74	2.68 Note 51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM SCRAPING POULTRY	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	POULTRY EGGS POULTRY EGGS	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		20.97 20.97	2.10
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	4.66 4.66	0.05
1-10 N leach	0.0667	0.0430	TOTAL N AMOUNTS IN KG AND % LEACHED	74.36 74.36	0.56
TOTAL	0.0911	0.0568	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	Note 45 Note 45
N2O-N/N in food/beverage/fuel/other				0.2065	0.1289 Note 46
Area with crop, ha		Total/year 1		0.79 1.16	Note 50
Natural background emissions, kg N2O-N/ha:		0.79		0.79	3.49 Note 51

SUMMARY SHEEP AND GOATS

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER SHEEP DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	SHEEP MILK/MUTTON SHEEP MILK/MUTTON	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		17.62 16.63 2.59 4.66	1.69 2.37 Note 45
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	8.66 8.18 0.09	0.09 Note 45
1-10 N leach	0.0673	0.0344	TOTAL N AMOUNTS IN KG AND % LEACHED	79.65 75.19 1.99	0.60 Note 45
TOTAL	0.0981	0.0498	TOTAL N AMOUNTS IN KG AND %	105.93 100.00	Note 45

N2O-N/N in food/beverage/fuel/other

Area with crop, ha	Total/year 1	0.2647	0.1345 Note 46
Natural background emissions, kg N2O-N/ha:	0.84 1.23		Note 50
	0.84	5.50	3.21 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM GRAZING SHEEP	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	SHEEP MILK/MUTTON SHEEP MILK/MUTTON	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		16.87 16.87 2.60 4.60	1.45 2.09 Note 45
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	5.04 5.04 0.05	0.05 Note 45
1-10 N leach	0.0683	0.0303	TOTAL N AMOUNTS IN KG AND % LEACHED	78.09 78.09 1.95	0.59 Note 45
TOTAL	0.0968	0.0439	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	Note 45

N2O-N/N in food/beverage/fuel/other

Area with crop, ha	Total/year 1	0.2728	0.1236 Note 46
Natural background emissions, kg N2O-N/ha:	0.80 1.18		Note 50
	0.80	5.41	2.89 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER GOAT DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	GOAT MILK/MEAT GOAT MILK/MEAT	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		13.82 13.07 2.35 4.30	1.50 2.25 Note 45
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	23.48 22.20 0.23	0.23 Note 45
1-10 N leach	0.0680	0.0346	TOTAL N AMOUNTS IN KG AND % LEACHED	68.47 64.74 1.71	0.51 Note 45
TOTAL	0.0903	0.0474	TOTAL N AMOUNTS IN KG AND %	105.77 100.00	Note 45

N2O-N/N in food/beverage/fuel/other

Area with crop, ha	Total/year 1	0.3108	0.1630 Note 46
Natural background emissions, kg N2O-N/ha:	0.81 1.19		Note 50
	0.81	5.11	3.07 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM GRAZING GOATS	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	GOAT MILK/MEAT GOAT MILK/MEAT	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		14.91 14.91 2.69 4.73	1.91 2.56 Note 45
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	5.22 5.22 0.05	0.05 Note 45
1-10 N leach	0.0691	0.0379	TOTAL N AMOUNTS IN KG AND % LEACHED	79.87 79.87 2.00	0.60 Note 45
TOTAL	0.0995	0.0538	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	Note 45

N2O-N/N in food/beverage/fuel/other

Area with crop, ha	Total/year 1	0.3175	0.1717 Note 46
Natural background emissions, kg N2O-N/ha:	0.81 1.19		Note 50
	0.81	5.55	3.37 Note 51

SUMMARY N CROP

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER GREEN MANURE HIGH N	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	HIGH N CROP CATTLE DAIRY	Note
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	13.40	13.38	1.49
Year N NH3	IPCC 1996	IPCC 2006	15.70	15.68	0.16
1-10 N leach	0.0539	0.0303	71.05	70.94	0.53
TOTAL	0.0784	0.0459	100.16	100.00	

N2O-N/N in food/beverage/fuel/other 0.2781 0.1630 Note 46

Area with crop, ha Total/year 1 0.97 1.43 Note 50

Natural background emissions, kg N2O-N/ha: 0.97 3.15 Note 51

N amount in reference crop year 2 after use of N crop as green manure, kg 11.20

N amount in reference crop year 1 after synthetic N fertilizer, kg 40.00

Relative value of green manure, % 28.00

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER GREEN MANURE LOW N	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR	LOW N CROP CATTLE DAIRY	Note
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	11.78	11.77	1.44
Year N NH3	IPCC 1996	IPCC 2006	14.20	14.19	0.14
1-10 N leach	0.0539	0.0303	74.11	74.04	0.56
TOTAL	0.0787	0.0449	100.09	100.00	

N2O-N/N in food/beverage/fuel/other 0.3176 0.1814 Note 46

Area with crop, ha Total/year 1 0.85 1.24 Note 50

Natural background emissions, kg N2O-N/ha: 0.85 2.98 Note 51

N amount in reference crop year 2 after use of N crop as green manure, kg 6.40

N amount in reference crop year 1 after synthetic N fertilizer, kg 40.00

Relative value of green manure, % 16.00

Note 43 Note 43

2.18 Note 45 Note 45 Note 45 Note 45

0.16 0.53

SUMMARY FOOD, FUEL, AND WASTE

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER NO MANURE	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND NOTHING FOR	FOOD FOOD	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		47.56	1.04
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	2.20	0.02
1-10 N leach	0.0539	0.0303	TOTAL N AMOUNTS IN KG AND % LEACHED	50.24	0.38
TOTAL	0.0539	0.0303	TOTAL N AMOUNTS IN KG AND %	100.00	
N2O-N/N in food/beverage/fuel/other				0.0539	0.0303
Area with crop, ha		Total/year 1		1.00	
Natural background emissions, kg N2O-N/ha:		0.68		0.68	Note 50
		0.68		0.68	Note 51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER NO MANURE	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND NOTHING FOR	FUEL FUEL	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		47.56	1.04
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	2.20	0.02
1-10 N leach	0.0539	0.0303	TOTAL N AMOUNTS IN KG AND % LEACHED	50.24	0.38
TOTAL	0.0539	0.0303	TOTAL N AMOUNTS IN KG AND %	100.00	
N2O-N/N in food/beverage/fuel/other				0.0539	0.0303
Area with crop, ha		Total/year 1		1.00	
Natural background emissions, kg N2O-N/ha:		0.68		0.68	Note 50
		0.68		0.68	Note 51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER NO MANURE	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND NOTHING FOR	WASTE DUMPED ELSEWHERE WITHOUT LEACHING WASTE, DUMPED ELSEWHERE	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		47.56	1.04
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	2.20	0.02
1-10 N leach	0.0539	0.0303	TOTAL N AMOUNTS IN KG AND % LEACHED	50.24	0.38
TOTAL	0.0539	0.0303	TOTAL N AMOUNTS IN KG AND %	100.00	
N2O-N/N in food/beverage/fuel/other				0.3391	0.1905
Area with crop, ha		Total/year 1		1.00	
Natural background emissions, kg N2O-N/ha:		0.68		0.68	Note 50
		0.68		0.68	Note 51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER NO MANURE	TO PRODUCE TO PRODUCE	WINTER BARLEY FOR BIOETHANOL AND NOTHING FOR	WASTE DUMPED IN FIELD AND LOST TO LEACH WASTE DUMPED IN FIELD	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		7.56	1.04
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	2.20	0.02
1-10 N leach	0.0749	0.0366	TOTAL N AMOUNTS IN KG AND % LEACHED	90.24	0.68
TOTAL	0.0749	0.0366	TOTAL N AMOUNTS IN KG AND %	100.00	
N2O-N/N in food/beverage/fuel/other				0.4714	0.2302
Area with crop, ha		Total/year 1		1.00	
Natural background emissions, kg N2O-N/ha:		0.68		0.68	Note 50
		0.68		0.68	Note 51

SUMMARY CATTLE RATIO OF N2O-N TO N IN FIRST CROP
 ACCORDING TO IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 FIRST YEAR 0.0549 0.0663 0.0334 0.0427
 TOTAL 0.0708 0.0904 0.0433 0.0563

N2O-N/N in food/beverage/fuel/other

MIN	MAX	MIN	MAX
0.77	0.88	0.77	1.15

Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha:

SUMMARY PIGS RATIO OF N2O-N TO N IN FIRST CROP
 ACCORDING TO IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 FIRST YEAR 0.0550 0.0637 0.0331 0.0401
 TOTAL 0.0661 0.0817 0.0391 0.0507

N2O-N/N in food/beverage/fuel/other

MIN	MAX	MIN	MAX
0.75	0.82	0.75	0.82

Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha:

SUMMARY POULTRY RATIO OF N2O-N TO N IN FIRST CROP
 ACCORDING TO IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 FIRST YEAR 0.0547 0.0667 0.0325 0.0430
 TOTAL 0.0645 0.0911 0.0369 0.0568

N2O-N/N in food/beverage/fuel/other

MIN	MAX	MIN	MAX
0.72	0.86	0.72	0.86

Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha:

SUMMARY SHEEP AND GOATS RATIO OF N2O-N TO N IN FIRST CROP
 ACCORDING TO IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 FIRST YEAR 0.0673 0.0691 0.0303 0.0379
 TOTAL 0.0903 0.0995 0.0439 0.0538

N2O-N/N in food/beverage/fuel/other

MIN	MAX	MIN	MAX
0.80	0.84	0.80	0.84

Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha:

SUMMARY FODDER RATIO OF N2O-N TO N IN FIRST CROP
 ACCORDING TO IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 FIRST YEAR 0.0547 0.0691 0.0303 0.0430
 TOTAL 0.0645 0.0995 0.0369 0.0568

N2O-N/N in food/beverage/fuel/other

MIN	MAX	MIN	MAX
0.72	0.88	0.72	1.15

Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha:

N2O-N emission IPCC 1996	N2O-N emission IPCC 2006
MIN MAX	MIN MAX
3.37 4.30	2.06 2.68

MIN	MAX	MIN	MAX
0.1456	0.2002	0.0898	0.1248
4.23	5.08	2.83	3.46

N2O-N emission IPCC 1996	N2O-N emission IPCC 2006
MIN MAX	MIN MAX
3.14 3.89	1.86 2.41

MIN	MAX	MIN	MAX
0.1110	0.1340	0.0675	0.0830
3.97	4.69	2.61	3.21

N2O-N emission IPCC 1996	N2O-N emission IPCC 2006
MIN MAX	MIN MAX
3.07 4.33	1.75 2.7

MIN	MAX	MIN	MAX
0.0972	0.2065	0.0582	0.1289
3.85	5.12	2.47	3.49

N2O-N emission IPCC 1996	N2O-N emission IPCC 2006
MIN MAX	MIN MAX
4.3 4.73	2.09 2.56

MIN	MAX	MIN	MAX
0.2647	0.3175	0.1236	0.1717
5.11	5.55	2.89	3.37

N2O-N emission IPCC 1996	N2O-N emission IPCC 2006
MIN MAX	MIN MAX
3.07 4.73	1.75 2.70

MIN	MAX	MIN	MAX
0.0972	0.3175	0.0582	0.1717
3.85	5.55	2.47	3.49